MERCER UNIVERSITY
Catalog 2008-2009

College of Liberal Arts
Eugene W. Stetson School of Business and Economics
School of Engineering
Tift College of Education
Townsend School of Music
School of Medicine

Macon, Georgia 31207
Correspondence Directory

For Information On:

Academic Programs
  College of Liberal Arts .....................Dean Richard C. Fallis
  School of Business and Economics ...........Interim Dean
    William S. Mounts, Jr.
  School of Engineering .....................Interim Dean Michael S. Leonard
  Tift College of Education ..................Dean Carl R. Martray
  Townsend School of Music .................Dean John H. Dickson
  School of Medicine .......................Interim Dean William F. Bina

Academic Records and Transcripts ............Office of the Registrar
Admissions and Transfers .....................Office of Admissions
Athletics ...................................Mr. Bobby A. Pope, Director of Athletics
Alumni .......................................Mr. T. Raleigh Mann
  Senior Associate Vice President, Alumni Services
Denominational Relations .....................Dr. Craig T. McMahan
  University Minister

Fees and Business Matters ....................Dr. James S. Netherton
  Executive Vice President for Administration and Finance
Gifts and Bequests ..........................Office of University Advancement
Housing/Residence Life ........................Mr. Jeff Takac
  Director of Housing and Residence Life
Graduate Studies ............................Provost Office
Undergraduate Studies .......................Provost Office
Library ....................................Ms. Elizabeth D. Hammond
  Dean of University Libraries
Social Organizations/Greek Life ...............Campus Life
Student Financial Planning ..................Ms. Carol K. Williams
  Associate Vice President for Student Financial Planning
Student Affairs .............................Dr. Douglas R. Pearson
  Vice President and Dean of Students

2 / MERCER UNIVERSITY
Calendar 2008–2009

**Fall 2008**
- Residence Halls Open (New Students) Aug 16
- Residence Halls Open (Returning Students) Aug 17
- Open Registration Ends Aug 18
- Opening Convocation Aug 20
- First Day of Classes Aug 19
- Late Registration and Drop/Add Period Aug 19-22
- Labor Day Holiday Sep 1
- Mid-Term Oct 8
- Fall Break Oct 9-10
- Last Day for Course Withdrawal Oct 24
- Application for Spring & Summer 2009 Graduation Due Oct 31
- Master's Theses and Dissertations Due in Provost Office Nov 1
- Thanksgiving Holidays Nov 26-28
- Last Day of Classes Dec 5
- Reading Days Dec 6, 7, 10
- Final Examinations Dec 8-9, 11-13

**Spring 2009**
- Residence Halls Open (All Students) Jan 12
- Open Registration Ends Jan 12
- New Student Orientation Jan 12
- First Day of Classes Jan 13
- Late Registration and Drop/Add Period Jan 13-16
- MLK, Jr. Holiday Jan 19
- Mid-Term Mar 4
- Spring Break Mar 9-13
- Last Day for Course Withdrawal Mar 26
- Good Friday Apr 10
- Application for Fall 2009 Graduation Due Mar 28
- Master's Theses and Dissertations Due in Provost Office Apr 1
- Honors Convocation Apr 13
- Last Class Day May 1
- Reading Days May 2, 3, 6
- Final Examinations May 4-5, 7-9
- Commencement May 16
Summer 2009

Session 1 (5 weeks)
- Holiday: May 25
- Classes Begin: May 26
- Classes End: June 24
- Reading Day: June 25
- Exams: June 26

Session 2 (5 weeks)
- Classes Begin: June 29
- Master's Theses and Dissertations Due in Provost Office: July 1
- Holiday: July 3
- Classes End: July 29
- Reading Day: July 30
- Exams: July 31 & Aug 1

Session 3 (10 weeks)
- Holiday: May 25
- Classes Begin: May 26
- Holiday: July 3
- Classes End: July 29
- Reading Day: July 30
- Exams: July 31 & Aug 1
# Table of Contents

## THE UNIVERSITY
- University Mission Statement and Statement of Goals .................................................. 9
- University-Wide Assessment. ......................................................................................... 10
- History .......................................................................................................................... 10
- The Foundation of the Mercer Education ................................................................. 12
- Colleges and Schools of Mercer .................................................................................. 13
- Campus Facilities ......................................................................................................... 19

## ENTERING THE UNIVERSITY
- Admission from Secondary Schools ............................................................................. 21
- Home-School Admission ............................................................................................. 21
- Admission from Other Colleges/Universities ............................................................... 23
- Non-Degree-Seeking Students ..................................................................................... 24
- International Students ................................................................................................. 25
- Immunization Policy ..................................................................................................... 27

## STUDENT AFFAIRS
- Student Government ..................................................................................................... 29
- The Honor System ......................................................................................................... 29
- Student Organizations and Honor Societies ............................................................... 30
- Recreational Sports and Wellness ................................................................................ 31
- Religious Life on Campus ............................................................................................. 32
- Counseling Services ...................................................................................................... 32
- Career Services ............................................................................................................ 32
- Cooperative Education and Internships ....................................................................... 33
- Academic and Advising Services ................................................................................ 34
- Library Services ............................................................................................................ 34
- Student Services ........................................................................................................... 36

## FINANCIAL INFORMATION
- Expenses ......................................................................................................................... 39
- Financial Assistance ..................................................................................................... 47

## ACADEMIC INFORMATION
- General Education ......................................................................................................... 59
- Degree Programs ........................................................................................................... 60
- Grading System ............................................................................................................. 62
- Registration .................................................................................................................... 64
- Schedule Changes ......................................................................................................... 65
- Academic Warning, Probation, and Suspension ............................................................ 69
- Recognition of Scholarship .......................................................................................... 70
- Graduation ..................................................................................................................... 74
- Student Records ............................................................................................................ 74
- Army ROTC Program .................................................................................................... 76
- Mercer Global Ambassador Program ........................................................................ 78
- Pre-Professional Programs ........................................................................................... 80
- Summer School ............................................................................................................. 85
- International Programs ................................................................................................. 86

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TABLE OF CONTENTS / 5
The University

Founded in 1833 in Penfield, Georgia, Mercer University has grown into one of the South’s premier universities. Mercer has more than 7,300 students and 1,250 faculty members on campuses in Macon, Atlanta, and Savannah and in regional academic centers in Henry County, Douglas County and Eastman. It is the only independent university of its size in the nation to offer programs in liberal arts, business, engineering, education, music, medicine, pharmacy and health sciences, law, theology, nursing, and continuing and professional studies. Mercer has been ranked among the leading regional colleges and universities in the South by U.S. News & World Report for 18 consecutive years.

In an educational environment where practical wisdom and compassion prevail, Mercer is motivated by the best in the Baptist tradition – exploring the relationship between faith and learning, and embracing the principles of intellectual and religious freedom. For 175 years, young men and women have left Mercer to become influential leaders and doers of great deeds.

Students benefit from Mercer’s welcoming atmosphere and small-class learning environment. They learn from a prestigious, yet caring, faculty. Mercer’s faculty members, whose credentials come from some of the world’s finest academic institutions, are distinguished for both teaching and research. More than 90 percent of the faculty hold doctorates or the highest attainable degrees in their respective fields.

Mercer’s reputation is built on its rigorous academic programs, outstanding faculty, and state-of-the-art facilities. Yet tradition plays a key role in the University’s unique identity as an institution committed to Judeo-Christian principles.

University Mission Statement

Mercer University is a faith-based institution of higher learning that seeks to achieve excellence and scholarly discipline in the fields of liberal learning and professional knowledge. The institution is guided by the historic principles of religious and intellectual freedom, while affirming religious and moral values that arise from the Judeo-Christian understanding of the world.

University Goals

- To offer undergraduate, graduate, and professional programs based upon a strong liberal arts foundation
- To support a highly qualified faculty that is student- and teaching-oriented and is engaged in scholarly research and professional activities
- To foster independent and critical thinking and a continuing interest in learning
- To foster intellectual and spiritual freedom in an environment that encourages tolerance, compassion, understanding, and responsibility
- To offer a variety of intellectual, cultural, recreational, and spiritual activities designed to enlarge capacity for improved judgment and moral, ethical, and spiritual growth
- To encourage the enrollment of qualified persons from diverse backgrounds and situations
- To contribute campus resources, in partnership with other institutions and agencies, to improve the educational, social, and economic development of the community
University-Wide Assessment

Mercer University conducts a university-wide assessment program to measure student progress toward educational goals, to evaluate academic programs, to improve learning and teaching, and to evaluate institutional effectiveness. Students are active participants in a variety of campus-based assessment activities that focus on attitudes, satisfaction, and academic achievement. It is through student participation in the assessment process that the University can better understand itself and better serve its constituents.

University History

Mercer University first opened its doors as Mercer Institute on January 14, 1833, at Penfield, Greene County, Georgia. It is named for Jesse Mercer (1769-1841), an eminent Georgian, distinguished Baptist clergyman, and principal organizer of the Georgia Baptist Convention. Establishment of Mercer Institute was due largely to his leadership and to the exemplary pioneering of Adiel Sherwood, a noted Baptist minister and, later, a faculty member. In 1871, the University was moved from Penfield to Macon, and, two years later, the Law School was established.

Early in the administration of Spright Dowell, which began in 1928, a new charter was approved, and the corresponding reorganization was perfected. Significant growth of the University ensued. Before President Dowell retired in 1953 to the position of president emeritus, the plant and property and endowment of the University had been increased more than in all of its previous years.

A more complete account of Mercer’s history may be found in President Spright Dowell’s A History of Mercer University, 1833-1953, published by Mercer University, 1958.

Chosen as Dr. Dowell’s successor was George B. Connell, a 1924 graduate who had served six years as vice president. During Dr. Connell’s term of office, from 1953 until his death on April 21, 1959, substantial strides were made throughout the University, including important new construction and the addition of approximately $1.5 million to the endowment fund.

Emeritus President Dowell, who had remained active in the service of the University during his retirement by writing a history of Mercer, was appointed by the Board of Trustees as interim president following Dr. Connell’s death. Dr. Dowell served until the succeeding president could assume office in April 1960. During his interim, the formerly independent Southern College of Pharmacy in Atlanta, founded in 1903, merged with the University. Dr. Dowell died on February 24, 1963.

On November 6, 1959, the Board of Trustees elected Dr. Rufus Carollton Harris, president of Tulane University, to the Mercer presidency. Dr. Harris, a 1917 graduate of Mercer who had served his alma mater from 1923 to 1927 as professor of law and as dean of the Law School, returned to Mercer with a record of outstanding achievements as head of one of the South’s most highly regarded universities.

On July 1, 1979, Dr. R. Kirby Godsey, former dean of the College of Liberal Arts and executive vice president of the University, succeeded Dr. Harris as Mercer’s 17th president. Dr. Harris assumed the position of chancellor of the University. The University made significant strides during Dr. Godsey’s tenure.

In 1979, the University established the Executive Forum business enrichment program and Mercer University Press. In 1982, it opened the School of Medicine with the mission of improving the supply and distribution of primary care and other needed specialty physicians in rural and underserved areas of Georgia. In 1984, the business and economics programs were separated from the College of Liberal Arts, and the Eugene W. Stetson School of Business and Economics was created.
A year later, Mercer established the School of Engineering, the second engineering school in the state. Building on the expertise within the new engineering school, the University established the Mercer Engineering Research Center in Warner Robins in 1987 to serve the engineering needs of Robins Air Force Base and other government and commercial clients.

In 1995, all teacher education and some social science programs were joined to create a new school which, by a Board of Trustees vote in 2001, was named the Tift College of Education. The action reflected the University's continuing commitment to carrying on the educational legacy of Tift College, an all-women's Baptist college that merged with Mercer in 1986.

In 1996, Jesse Mercer's founding vision of providing students with a classical and theological education came full circle with the founding of the James and Carolyn McAfee School of Theology.

Georgia Baptist College of Nursing merged with Mercer on January 1, 2001. Founded in 1902, the College of Nursing became part of the University through an agreement with the Georgia Baptist Convention.

The College of Continuing and Professional Studies, established in 2003, offers undergraduate degrees in major career fields at Mercer's regional academic centers and a master's degree in community counseling and public safety leadership in Atlanta. The College also provides non-credit programs for professional development and community enrichment.

Under Dr. Godsey's leadership, Mercer grew from 3,800 students to more than 7,300. Recognized by Georgia Trend magazine as one of Georgia's most influential leaders, Dr. Godsey also led the University to increase its endowment from $16.5 million in 1979 to more than $200 million in 2006, with another $300 million in planned gifts.

On July 1, 2006, legal scholar William D. Underwood succeeded Dr. Godsey as Mercer's 18th president. Mr. Underwood had served as interim president at Baylor University from April 2005 until January 2006. Dr. Godsey became chancellor of Mercer.

In 2006, Tift College of Education's Educational Leadership Program began offering the University's second Doctor of Philosophy degree Program.

The 103-year-old Southern School of Pharmacy changed its name to the College of Pharmacy and Health Sciences on July 1, 2006. The name change reflects the college's additional health science programs, including a physician assistant program.

The Department of Music in the College of Liberal Arts became the Townsend School of Music on July 11, 2006. The school, which offers undergraduate and graduate programs, was made possible through a gift from Carolyn Townsend McAfee and her son and daughter-in-law, J. Thomas and Julie Crangle McAfee, which was announced at the April 2006 meeting of the Board of Trustees.

The American Baptist Historical Society, with the largest and most diverse collection of Baptist historical materials and archives in the world, announced it will relocate to Mercer's Atlanta campus, positioning Mercer and the McAfee School of Theology to become a national center of Baptist scholarship.

Radio station WMUM-FM (Mercer University Macon), formerly WDCO-FM, began broadcasting from Mercer's Macon campus. A partnership between Mercer and Georgia Public Broadcasting, the station provides local content to central Georgia public radio listeners.

In 2007, three teams of students and faculty inaugurated the Mercer on Mission program over the summer in Kenya, Brazil and Guatemala. The program combines academic credit with service-learning opportunities.
In June 2007, Mercer School of Medicine, as it celebrated its 25th year, announced it will open a second, four-year doctor of medicine program in Savannah in fall 2008. The program is based at Memorial Health University Medical Center, where Mercer has had a clinical relationship since 1996 to provide instruction for part of the school’s third- and fourth-year medical students.

In fall 2007, the Robert McDuffie Center for Strings accepted its first class of students. Located on the Macon campus, the center offers conservatory-quality music training in a comprehensive university setting. Under the leadership of internationally renowned violinist Robert McDuffie, the center is designed to provide highly talented string students the opportunity to learn with some of the nation’s renowned string musicians.

The Mercer Athletic Foundation was established to raise funds needed to support intercollegiate athletics.

The new $14-million Science and Engineering Building opened in fall 2007 on the Macon campus.

On January 14, 2008, Mercer University marked its 175th year of educating men and women to be leaders in their communities and the world.

In January 2008, the College of Pharmacy and Health Sciences accepted its inaugural class of the Physician Assistant Program.

In the course of its history, Mercer University has had 24 persons serving in the President’s Office. Their names and the dates of their administrations are as follows:

- Billington McCarty Sanders, 1833-1840
- Otis Smith, 1840-1844
- John Leadly Dagg, 1844-1854
- Nathaniel Macon Crawford, 1854-1856
- Shelton Palmer Sanford, Acting President, 1856-1858
- Nathaniel Macon Crawford, 1858-1866
- Henry Holcomb Tucker, 1866-1871
- Archibald John Battle, 1872-1889
- Gustavus Alonzo Nunnally, 1889-1893
- John Edgerton Willet, Acting President, 1893-1893
- James Burton Gambrell, 1893-1896
- Pinckney Daniel Pollock, 1896-1903
- William Heard Kilpatrick, Acting President, 1903-1905
- Charles Lee Smith, 1905-1906
- Samuel Young Jameson, 1906-1913
- James Freeman Sellers, Acting President, 1913-1914
- William Lowndes Pickard, 1914-1918
- Rufus Washington Weaver, 1918-1927
- Andrew Phillip Montague, Acting President, 1927-1928
- Spright Dowell, 1928-1953
- George Boyce Connell, 1953-1959
- Spright Dowell, Interim President, 1959-1960
- Rufus Carrollton Harris, 1960-1979
- Raleigh Kirby Godsey, 1979-2006
- William D. Underwood, 2006-present

The Foundation of the Mercer Education: Mercer’s Mission, Common Outcomes, and Defining Values

Consistent with its mission, Mercer University is a community of learning that shapes the minds and spirits of tomorrow’s leaders. As a community of learning, Mercer is a student-cen-
tered university, committed to the Baptist heritage in higher education. Together, the schools and colleges at Mercer pursue three outcomes they hold in common: fostering learning, developing character, and preparing leaders.

These commonly held ideals are rooted in the history of higher education and can be traced to the formative influence of “paideia,” the philosophy of education birthed in ancient Greece. Paideia connotes the sort of education that uniquely prepares individuals to lead virtuous and responsible lives within a democratic society. It addresses the character as well as the mind of the learner and celebrates the ideal of educating the whole person. At Mercer, teachers committed to their students, their disciplines, and the vocation of teaching inspire students to share in a passionate quest for knowledge and the wisdom that transforms knowledge into power.

Mercer promotes the principles of free and critical inquiry, excellence in teaching and learning, responsibility for civic engagement, and the importance of diversity and inclusiveness. Consequently, a Mercer education prepares students to expand their horizons, enjoy a “well-stocked mind,” find their vocation, establish a high standard of ethics, appreciate the fine arts, and find fulfillment in enriching and improving the lives of others.

Colleges and Schools of Mercer University

Mercer's Macon location is a beautiful, 130-acre campus to the west of downtown. It is home to the College of Liberal Arts, the School of Medicine, the Stetson School of Business and Economics, the School of Engineering, the Townsend School of Music, the College of Continuing and Professional Studies, and the Tift College of Education. The Walter F. George School of Law is located a mile from the main campus in a four-story reproduction of Independence Hall that sits atop Coleman Hill, overlooking downtown Macon.

Mercer's Cecil B. Day Graduate and Professional Campus is located on more than 300 acres, just off exit 94 on I-85 in northeast Atlanta. It is home to the College of Pharmacy and Health Sciences, the James and Carolyn McAfee School of Theology, the Georgia Baptist College of Nursing, the Stetson School of Business and Economics, the College of Continuing and Professional Studies, and the Tift College of Education.

Mercer’s Savannah campus is home to the School of Medicine. Stetson School of Business and Economics and Tift College of Education also offer graduate programs.

The Regional Academic Centers’ programs are offered at five educational centers: one on the main campus in Macon, one on the Cecil B. Day Campus in Atlanta, and three off-campus community-based locations in Douglas County, Henry County and Eastman. The programs are an important part of Mercer's educational outreach to older or non-traditional students. The academic programs include undergraduate and graduate degrees in major career fields.

College of Liberal Arts (Macon)

The purpose of the College of Liberal Arts is to provide a liberal arts education within the broad outlook of the Judeo-Christian intellectual tradition. It is committed to the goals of learning and faith, and strives to uphold the values of personal freedom, individual responsibility, and community service.

The oldest of the University's academic units, the College of Liberal Arts currently serves 1,273 students and offers a full array of baccalaureate programs in the humanities, fine arts, social sciences, and sciences. Degrees awarded are Bachelor of Arts and Bachelor of Science.
The School of Medicine (Macon, Savannah)

The purpose of the School of Medicine of Mercer University is to provide an education for future physicians who will meet the health care needs of Georgia. The school has an enrollment of 362 students. The school offers the following degrees: Doctor of Medicine, Master of Family Therapy, Master of Public Health, and Master of Science in Anesthesia. For the Doctor of Medicine degree, the curriculum in the first two years is problem-based and clinically oriented. Students study the basic sciences in an interdisciplinary fashion in small groups. Also during the first two years, students begin learning clinical skills while working with simulated and real patients. The final two years of the curriculum are largely spent in clinical clerkships in affiliated hospitals. These clerkships include internal medicine, surgery, pediatrics, family medicine, obstetrics/gynecology, and psychiatry. During all four years, students participate in primary care preceptorships in communities throughout Georgia. A second Doctor of Medicine Program is offered on the Savannah campus, beginning Fall 2008.

Eugene W. Stetson School of Business and Economics (Macon, Atlanta, Henry County, Douglas County, Savannah)

The Eugene W. Stetson School of Business and Economics is committed to providing high-quality educational programs and services that effectively integrate an academic perspective with actual business practices.

The school serves more than 1,164 students. The following degrees are offered: Bachelor of Business Administration, Master of Business Administration, Professional Master of Business Administration, Executive Master of Business Administration, and the Master of Accountancy (MAcc). The school offers a BBA program on the Macon campus and in the Douglas County Center and a BBA completion program on the Atlanta campus. The MBA is offered in Macon and Atlanta, the EMBA and MAcc on the Atlanta campus, and the Professional MBA at the Henry County Regional Academic Center and in Savannah.

The school promotes close ties with business practitioners by providing internships, offering The Executive Forum speakers series, and bringing business professionals to campus to lecture as a part of Business Week. Students and faculty have regular opportunities to learn from executives who are applying the tools of management in the marketplace.

School of Engineering (Macon)

The School of Engineering educates future professionals for engineering and related professions. Students acquire knowledge and skills that are critical to success in a highly technological world. Emphasis is placed on the development of communication and teaming skills and sensitivity to moral and ethical issues that are fundamental to achieving one’s full potential.

The school serves 504 students and offers the following degrees: Bachelor of Science in Engineering, Bachelor of Science with concentrations in Industrial Management and Technical Communication, Master of Science in Engineering, and Master of Science with majors in Software Systems, Technical Communication Management, and Technical Management. Programs are offered on the Macon campus and through distance education.
Tift College of Education (Macon, Atlanta, Savannah, Regional Academic Centers)

Dedicated to preparing outstanding educators for the 21st century, the College of Education offers strong programs in a variety of fields to meet the needs of diverse students in the teacher education community.

The college serves 1,457 students. Degrees offered include the Bachelor of Science in Education, Master of Education, Master of Arts in Teaching, Specialist in Education, and Ph.D. in Educational Leadership. The college also offers initial teacher certification at the undergraduate and graduate level.

Majors include Teacher Education in The Holistic Child: Early Childhood and Interrelated (with ESOL option), and Middle Grades Education. In addition to these majors, the College of Education, in conjunction with the College of Liberal Arts, offers certification programs in secondary education (7-12) and special subjects (P-12) for students enrolled in the College of Liberal Arts.

Undergraduate programs are offered on the Macon and Atlanta campuses, as well as the off-campus centers in Douglas County, Eastman, and Henry County. Graduate programs are offered on the Macon and Atlanta campuses, and at the Henry County Center.

Walter F. George School of Law (Macon)

The Walter F. George School of Law offers a legal education that effectively integrates knowledge with practice, and emphasizes professionalism and the every day skills used by today's lawyers.

Currently serving 449 students, the school offers the Juris Doctor degree.

The Woodruff Curriculum, Mercer's model curriculum, focuses on ethics and practical skills. It was honored with the Gambrell Professionalism Award from the American Bar Association for its "depth and excellence" and "obvious commitment to professionalism."

The school's unique and innovative Legal Writing Program is consistently ranked among the top in the nation.

Townsend School of Music (Macon)

At the April 2006 meeting of the Mercer Board of Trustees, then President Godsey announced a major gift from Carolyn Townsend McAfee and J. Thomas and Julie Crangle McAfee to endow a new School of Music. The action was approved unanimously by the Board.

The Townsend School of Music became effective July 1, 2006. A department of music was previously housed within the College of Liberal Arts. The school, which has 97 students, offers undergraduate and graduate degree programs.

College of Pharmacy and Health Sciences (Atlanta)

The mission of the College of Pharmacy and Health Sciences is to prepare its graduates to provide pharmaceutical care and thereby assure the safe and effective use of medications for the benefit of the patient and society. The college provides an environment in which students can actively participate to gain knowledge of pharmaceuticals and their actions, to understand contemporary pharmacy practice, and to develop problem-solving skills.
Drawing students from throughout the nation and world, the college currently has an enrollment of 624 students. In September of 1981, the school became the first pharmacy school in the Southeast and the fifth in the nation to offer the Doctor of Pharmacy (Pharm.D.) as its sole professional degree. In January 2008, the college accepted the inaugural class of its Physician Assistant Program. The college awards the following degrees: Doctor of Pharmacy, Doctor of Pharmacy/Master of Business Administration, Doctor of Philosophy in Pharmaceutical Sciences, Doctor of Pharmacy/Doctor of Philosophy, and Master of Medical Science.

The college is also committed to providing postgraduate education, including graduate programs, residencies, fellowships, certificate programs, and other post-graduate educational opportunities.

**James and Carolyn McAfee School of Theology (Atlanta)**

The mission of the McAfee School of Theology is to extend the mission of the Church in the world by equipping women and men called of God for authentic ministry, the pursuit of spiritual maturity, and the lifelong process of theological inquiry. We are a community: centered on God in Jesus Christ, led by the Holy Spirit, guided by sacred Scripture, founded on the heritage of Baptists, and committed to the ministry of the Church. Our vision is to graduate ministers whose passion for God and neighbor leads Christian communities to integrate head and heart, worship and witness, tradition and innovation, responsible theological inquiry and prophetic vision.

The school serves more than 237 students and offers the Master of Divinity and Doctor of Ministry degrees, and concentrations in academic research, business administration, Christian education, church music, pastoral care and counseling, and urban mission. The McAfee School of Theology and the School of Music collaborate, through the Townsend Institute, to offer the Master of Music in Church Music, the Master of Music in Performance, with an emphasis in church music, and the Master of Divinity, with a concentration in church music. McAfee also partners with the Stetson School of Business and Economics to offer a joint Master of Divinity and Master of Business Administration, as well as with the College of Continuing and Professional Studies to offer a joint Master of Divinity and Master of Science in Community Counseling.

McAfee partners with the Cooperative Baptist Fellowship, attracting students who have looked critically at the options for theological education and seek preparation for ministry in the 21st century.

**Georgia Baptist College of Nursing (Atlanta)**

Georgia Baptist College of Nursing is the oldest nursing program in the metropolitan Atlanta area. Its students receive three years of clinical experience, in contrast to only two years at other schools of nursing. The college holds contracts with more than 40 affiliating clinical agencies, which give students opportunities to experience nursing in a variety of settings, from hospitals to school districts to health departments. Georgia Baptist College of Nursing currently serves 428 students. The college offers the Bachelor of Science in Nursing and the Master of Science in Nursing degrees.

The undergraduate degree program offers two tracks: generic and advanced. The generic track is suited for pre-licensure students who are not yet registered nurses and are pursuing initial professional nursing education. The RN-BSN advanced track is for registered nurses who have graduated from an accredited associate degree or diploma nursing program and have successfully completed the National Council Licensure Exam for RNs. The graduate degree program also has two tracks: nursing educator and acute/critical care nursing of the adult.
The College of Continuing and Professional Studies (Macon, Atlanta, Regional Academic Centers)

Established in January of 2003, the College of Continuing and Professional Studies is committed to serving adult learners with distinctive interdisciplinary undergraduate and graduate degree programs that integrate theory and practice in unique ways. The college’s faculty and professional support staff are committed to offering quality learning experiences and the personal attention and support that will enable nontraditional learners to achieve their educational and career goals.

The college serves 750 students and offers undergraduate degrees in criminal justice, human services, information systems, liberal studies, and organization leadership, as well as general education offerings, in Atlanta, Douglas County, Eastman, Henry County, and Macon. On the graduate level, the College of Continuing and Professional Studies offers master’s degree programs in community counseling and public safety leadership. More than 1,500 students enroll in non-credit programs that include the Public Safety Leadership Institute and information technology certifications.

Accreditation

Mercer University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award the baccalaureate, master's, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call (404) 679-4500 for questions about the accreditation of Mercer.

The National Collegiate Athletic Association has certified Mercer University. The web site is www.ncaa.org.

The Stetson School of Business is accredited by the Association to Advance Collegiate Schools of Business, 777 South Harbour Island Boulevard, Suite 750, Tampa, FL 33602; telephone (813) 769-6500; Web site http://www.aacsb.edu.

Programs in the College of Liberal Arts are accredited by two accrediting bodies. The American Chemical Society accredits the baccalaureate chemistry program, 1155 Sixteenth Street NW, Washington, DC 20036, telephone (800) 227-5558 (U.S. only); Web site http://www.acs.org. The Computing Science Accreditation Board, Inc. of ABET, Inc. accredits the Bachelor of Science degree in Computer Science. Inquiries relating to accreditation in Computing Science can be made to Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012; telephone (410) 347-7700; Web site, http://www.abet.org.

Mercer University's professional education programs are accredited by the National Council for Accreditation of Teacher Education (NCATE; www.ncate.org) and approved by Georgia's Professional Standards Commission. This accreditation includes all initial teacher preparation programs and all advanced educator preparation programs offered on all Mercer campuses and centers. Contact NCATE at 2010 Massachusetts Avenue N.W., Suite 500, Washington, D.C. 20036 or call (202) 466-7496.

In the School of Engineering the Bachelor of Science in Engineering degree is accredited by the Engineering Accreditation Commission of ABET, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone (410) 347-7700; Web site http://www.abet.org.


The School of Medicine is accredited by four accrediting bodies. The Doctor of Medicine is accredited by the Liaison Committee on Medical Education. LCME is jointly sponsored by the Association of American Medical Colleges (2450 N. Street, N.W., Washington, DC 20037;

The nursing anesthesia program of the School of Medicine is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs, 222 South Prospect Avenue, Suite 304, Park Ridge, IL 60068-4010; telephone (847) 692-7050; Web site http://www.aana.com. The Marriage and Family Therapy Program of the School of Medicine is accredited by the Commission on Accreditation of Marriage and Family Therapy Education, American Association for Marriage and Family Therapy, 112 South Alfred Street, Alexandria, VA 22314, telephone (703) 838-9808, Web site http://aamft.org. The master’s degree in Public Health is accredited by the Council on Education for Public Health, 800 Eye Street, N.W., Suite 202, Washington, DC 20001-3710; telephone (202) 789-1050; Web site http://www.ceph.org.

The undergraduate and master’s music programs of the Townsend School of Music are accredited by the National Association of Schools of Music, 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190-5248; telephone (703) 437-0700; Web site http://nasm.arts-accredit.org.

The Bachelor of Science in Nursing program and the Master of Science in Nursing program of Georgia Baptist College of Nursing are accredited by the Commission on Collegiate Nursing Education. Inquiries should be addressed to the Commission on Collegiate Nursing Education, One Dupont Circle, N.W., Suite 530, Washington, DC 20036; telephone (202) 463-6930; Web site http://www.aacn.nche.edu. The College of Nursing is approved by the Georgia Board of Nursing; this entity can be contacted at 237 Coliseum Drive, Macon, GA 31217-3858; telephone (478) 207-2440; Web site http://www.sos.state.ga.us/plb/rn.

The College of Pharmacy and Health Sciences is accredited by The Accreditation Council for Pharmacy Education, 20 North Clark Street, Suite 2500, Chicago, IL 60602; telephone (312) 664-3575; Web site http://www.acpe-accred.org. The Physician Assistant program is provisionally accredited by the Accreditation Review Commission on Education for Physician Assistant, Inc.

The James and Carolyn McAfee School of Theology is accredited by the Association of Theological Schools, 10 Summit Park Drive, Pittsburgh, PA 15275; telephone (412) 788-6505; Web site http://www.ats.edu.

**Grants and Contracts Office**

The Grants and Contracts Office (GCO) at Mercer University is the centralized administrative office that oversees the entire award process from the proposal submission to the award close out. This includes proposals and awards in support of any sponsored program to include Research, Instruction, Training, and Community Service Projects. GCO has an enhanced database that houses the University’s grant and contract information.

GCO assists faculty in all aspects of the pre-award process. It assists faculty in finding funding opportunities and provides general support to faculty for the preparation and submission of proposals including assistance with budget preparation and review. GCO is responsible for coordinating the routing of proposals for administrative review and approval prior to submission of applications to sponsoring agencies.

GCO manages all aspects of post-award administration. It is responsible for establishing accounts, managing budgets, authorizing expenditures, ensuring compliance with University policy and agency guidelines, collecting time and effort certifications, invoicing and reporting. Additional information can be found at: http://www2.mercer.edu/Grants/default.htm
International Programs at Mercer University

The Office of International Programs (OIP) is the central administrative unit of international education. The OIP manages the study abroad program, student and faculty exchange programs, international student and scholar services, and courses in the English Language Institute (ELI) on the Atlanta campus. The OIP is also responsible for managing the University’s relationships with foreign universities and academic programs. Its mission is to support students and faculty in each of these areas of international education.

Detailed information on international programs and services offered by Mercer University is found in the “Academic Information” portion of this catalog.

Campus Facilities Improvement Program

Over the past decade, the University has enhanced its facilities on both the Macon and Atlanta campuses through one of the largest capital improvement efforts in Mercer’s history. Below are some of the construction and/or renovation projects located on the Macon campus:

R. Kirby Godsey Administration Building – The building was constructed in 1871-1874 and is the University’s oldest structure. It is on the National Register of Historic Places and is considered one of the architectural monuments of the city. The building, completely restored in 1977-1979, houses administrative offices. Restoration of the slate roof and its spires was completed in August 2000.

Greek Village – The University showed its commitment to Greek life at Mercer with the construction of the Greek Village. The fraternity and sorority houses opened in the fall of 2000. The 18 new buildings house a total of 150 students and provide common meeting rooms for each organization.

Campus Apartments – The seven apartment buildings, that opened in the fall of 2000, house 200 students.

Knight Hall – This humanities building underwent a complete renovation from the ground to the roof. It is now equipped with high-technology classrooms and offices. This building houses the College of Liberal Arts’s departments of foreign languages and literatures, philosophy, and Christianity.

Groover Hall – This historic building in the heart of the Quad was completely renovated during the summer of 2000. Originally built as a gym, this building has housed the cafeteria, the Tift College of Education, and the Academic Resource Center. Today, it is home to the College of Liberal Arts’ Department of Interdisciplinary Studies.

Police Station – This building was constructed near the campus housing on Winship Street. Mercer’s police officers use this facility as a home base for campus safety.

Religious Life Center – This $1.6 million facility, which opened in the fall of 2001, houses the Baptist Student Union and other campus religious organizations. The advanced level of audio/visual equipment in the multipurpose room enhances the gathering space for the religious life of the campus.

McCorkle Music Building – This impressive 28,000-square-foot facility opened in the fall of 2001 and houses the Townsend School of Music. The 200-seat Neva Langley Fickling Hall is one of the most acoustically sound in the Southeast.
Human Resources and Recreation Building – Built to provide transitional space during the campus’s expansion program, the facility houses the College of Liberal Arts’ Communication and Theatre Arts Department. The second floor of the building houses Human Resources’ offices.

Mercer Hall – This 208-bed facility is a replacement building for the old University Hall, which was torn down in 2001. The building is designed for upper-level students.

Sherwood Hall – This historic residence hall has been home to some of Mercer’s most famous alumni and was, until the renovation, the only remaining residence hall on campus with community style bathrooms and without air conditioning. The renovations of the summer of 2001 will allow this facility to be viable for years to come.

University Center – The University celebrated the opening of the building in March of 2004. Located in the center of the Macon campus on the site of the former Fraternity and Sorority Row, the 228,000-square-foot facility encompasses nearly 8 acres, or approximately the size of three football fields. This $40 million state-of-the-art building contains a gym with three courts, a pool, fitness center, weight room, group fitness room, and cardiovascular rooms for students, faculty, and staff.
Entering The University

Admission from Secondary Schools

Mercer University seeks to admit students who have outstanding academic credentials and personal characteristics indicating they will contribute to the diversity and richness of the campus, both inside and outside of the classroom. Applicants’ records should reflect a strong commitment to their educational goals, a sense of responsibility to themselves and their communities, and a promise of growth, intellectually and socially.

Applicants are considered on the strength of their academic record, standardized test scores, character and leadership potential, co-curricular and service-related activities.

Admission to the University normally requires graduation from an accredited, secondary school with a minimum of sixteen units of high school credit including English (4 units), mathematics (4 units), laboratory science (3 units), social science/history (3 units) and foreign language (2 units). Applicants are expected to be in good academic and disciplinary standing at their current or last institution attended.

Students not meeting minimum admission requirements may have the following options:

1. Attendance at Mercer’s Summer Program for new students to demonstrate their college preparedness.
2. Reconsideration for admission through submission of additional academic information (new SAT/ACT scores, high school transcripts).

Application Materials and Supporting Documentation

- Application for Admission
- $50 non-refundable application fee
- Official high school transcript(s)
- Official SAT or ACT scores (Scores on official high school transcripts are accepted.)

Students may apply to Mercer University's traditional undergraduate programs through the Early Action Deadline (November 1) or the Regular Decision Deadline. Applications are accepted at any time, but evaluations do not begin until September of an applicant's senior year of high school. An admission decision is rendered once all official documents have been received (high school transcripts, SAT/ACT scores). An applicant is notified of his/her admission or denial within two to four weeks of the completed application having been received and processed by the Office of University Admissions.

Special Admissions

Home-Educated Applicants

The University works with home-schooled applicants and has established methods to evaluate these students in a manner comparable to other freshman applicants.

For traditional freshman applicants, Mercer requires students to complete a college preparatory curriculum (CPC) from an accredited high school in order to be considered for admission. Students who cannot verify CPC completion with an accredited high school must show academic strength in the CPC subjects through a combination of SAT II, Advanced Placement (AP) exams, college level coursework, and/or a portfolio. The University uses the SAT or ACT exam results to evaluate a student’s overall academic knowledge.
The required CPC subject areas and units* are:

1. English, 4 units;
2. Mathematics, 4 units, including Algebra II, geometry, and a fourth mathematics for which Algebra II is a prerequisite;
3. Science, 3 units, including lab courses from life and physical sciences;
4. Social studies, 3 units, including American and world studies;
5. Language, 2 units; both units must be in the same language.

The University then reviews the entire file of a home-schooled applicant, in comparison with other applicants, to select the most qualified students for admission.

* A unit is often referred to as a Carnegie Unit and represents a full academic year of credit.

Advance Admission

Advance admission may be granted to mature, rising high school seniors who have above-average SAT/ACT scores and have attained exceptional achievements in high school course work. Candidates should follow the normal application procedure and submit three letters of recommendation. The letters must be from a student’s principal/headmaster, guidance counselor, and parent(s) or guardian(s).

Letters from high school administrators must state the requirements that a student must fulfill at Mercer in order to receive a high school diploma. A letter from the parent(s) or guardian(s) must give permission for the student to enter the University. The candidate is also required to interview with a senior officer in the Office of University Admissions.

Applicants with General Education Diploma (GED)

In limited circumstances, applicants may be considered for admission if they have a General Education Diploma. These applicants must meet the following requirements to be considered for admission to the traditional undergraduate program:

1. Have a minimum GED score of 2,500, and have met the score of 400 or above on all sections.
2. Have a score of at least 500 on each section of the SAT or corresponding converted scores from the ACT.

Enrollment Deposit

To reserve a place in the in-coming class, accepted students should submit a $300 deposit by May 1. The deposit is refundable until May 1 for those students admitted to the summer or fall semesters. The refund deadline for the spring semester is December 1. Students may request a refund of a deposit before the stated deadline by submitting a written request to the Office of University Admissions. Deposits made after the stated refund deadline are automatically non-refundable.

Advanced Placement, College Level Examination Program, and International Baccalaureate Credit

Credit is awarded to those students who take Advanced Placement (AP) courses at the high school level and score a 3 or higher on examinations administered by the Educational
Testing Service. In certain cases, a score of 4 or 5 will allow a student to receive credit for two courses. Applicants should request that a score report from The College Board be sent to the University’s Office of the Registrar.

The University also awards credit for examinations administered by the College Level Examination Program (CLEP). Credit is given for scores at or above the 50th percentile on the general and/or subject exams. For more information on CLEP examinations, contact the Sylvan Learning Center at (478) 405-7425.

The International Baccalaureate Program is an internationally recognized curriculum that is taught at numerous high schools in the United States, Canada, and other countries. Mercer awards credit for scores of 5, 6, or 7 on the higher-level examinations of the International Baccalaureate Program. Score reports should be included with a student’s final high school transcript or from the International Baccalaureate Office.

Advanced Placement, CLEP, and International Baccalaureate credits that satisfy University criteria may be applied toward the Bachelor of Science in Engineering degree only for courses that are required in the engineering curriculum.

Students may not receive more than a total of 32 semester hours of credit from any or all these sources.

Readmitted Students

Students who wish to enroll in the University after an absence of more than one semester must be in good standing with the University and have a cumulative grade point average of 2.0 or higher. If applicable, a transcript from each institution attended during a student’s absence from the University must be submitted as part of the application process.* An application for readmission should be made with the Office of the Registrar. Readmission should be requested at least four weeks prior to the date of anticipated enrollment.

Students applying for readmission who do not have a cumulative grade point average of 2.0 and who are not in good standing with the University are required to request readmission through a letter addressed to the dean of the school/college of the student’s prior enrollment. The letter and application form should be presented at least four weeks prior to the date of anticipated enrollment.

As a general rule, readmitted undergraduate and graduate students are permitted to graduate from Mercer University according to the degree requirements set forth in the catalog under which they originally enrolled. However, students who leave the University and do not re-enroll for three consecutive years must fulfill the catalog requirements in force at the time of re-enrollment.

Students who seek readmission after ten years must reapply through the Office of Admissions.

* Students who seek readmission after five years must secure new transcripts from all other institutions attended, including those institutions attended prior to their initial enrollment at Mercer.

Application Process for Transfer Applicants from Other Colleges and Universities

Candidates for transfer admission from a regionally accredited college or university should submit an application for admission, a $50 non-refundable application fee, and official transcript(s) from all colleges/universities attended. To ensure proper evaluation of transfer credit, transfer applicants should observe the following deadlines:
Summer Semester May 1
Fall Semester July 1
Spring Semester December 15

Candidates must have completed at least 9 semester hours of college work after high school graduation to be classified as a transfer student. Applicants with less than 30 semester hours of college credit earned must submit official high school transcripts and official SAT or ACT score reports.

Transfer applicants must be in good academic standing at the college/university of current enrollment or present evidence of satisfactory work in a college/university previously attended. Satisfactory work is classified as a cumulative 2.5 grade point average on a 4.0 scale. Students requesting exceptions to this policy may be asked to submit additional documentation or enter the University on a probationary status, in which case certain grades may be required before enrollment in subsequent semesters is allowed.

Transfer applicants will be notified of their admission to the University on a rolling basis. Upon acceptance, an official evaluation of academic standing will be mailed to each student. Those who intend to enroll should submit enrollment deposits of $300 to hold their spaces in the entering class.

This deposit is refundable until May 1 for those students admitted to the summer and fall semesters. The refund deadline for the spring semester is December 1. Students may request a refund of the deposit before the stated deadline by submitting a written request to the Office of University Admissions. Deposits made after the stated refund deadline are automatically non-refundable.

Course work with a grade of C- or better that was completed at regionally accredited institutions will be evaluated on a course-by-course basis and considered for transfer as an equivalent Mercer course or as elective credit. A minimum of 32 credits must be earned in residence at Mercer University for graduation, regardless of the number of credits accepted in transfer. These credits are generally the last credits required to complete the degree. At least 12 semester hours of upper division work in a major, concentration, or specialization, and 6 semester hours of upper division work in a minor, if elected, must be done in residence.

The University Registrar determines which courses taken at other institutions are directly comparable and will be credited toward completion of degree requirements at Mercer. The maximum credit allowed from all two-year colleges attended is 64 semester hours (96 quarter hours). Developmental and institutionally-based courses will not be accepted for transfer credit. In addition, courses in programs not available at Mercer (e.g., vocational programs) will not be accepted.

Correspondence work will not be accepted for credit toward a degree. The University does accept courses from the Independent Study Programs of the University of Georgia for transfer credit; the maximum number of credits accepted from this program is 9 semester hours. The maximum number of credits allowed for extension work of a non-correspondence nature is 12 semester hours; this limitation does not apply to work taken in off-campus permanent centers. The maximum credit allowed for off-campus work is 30 semester hours. No more than 30 semester hours of combined off-campus and extension work is allowed; such work must be taken before the student reaches junior status.

Special Student (Non-Degree) Status

Candidates who have not met all entrance requirements may, under certain conditions, be admitted to the University. These students are not considered to be candidates for degrees. They generally fall into three categories, as described as follows:
Transient Students

Candidates currently enrolled and in good standing at another college or university may be admitted as transient students. Applicants should follow the University's transfer admissions procedure. Additionally, a letter from the dean of the college or school where the student is currently enrolled must be sent to the Office of University Admissions. The letter must give specific approval for the student to attend Mercer and specify the courses that may be taken.

Unclassified Students

Candidates may apply to enroll in courses to qualify for admission to graduate or professional schools. These students will not be classified for enrollment purposes. Graduate students not in the Mercer Graduate Program may enroll as postgraduate-unclassified students. The application for admission must include an official transcript from the last college/university attended.

Auditors

Candidates may apply for auditor status and enroll in a course(s) as an auditor. Permission of the instructor is required. Auditors are subject to auditing regulations, as described in the “Academic Information” section of this catalog. The audit fee is listed in the “Financial Information” section of the catalog.

International Students

Students from countries other than the United States are an important part of the University community and are encouraged to apply.

Admission Policies for International Students

International students wishing to apply for admission should request application forms from the Office of International Admissions. An application may be made in any given semester at least three months prior to the intended date of enrollment. An application fee of $100 is required. International students must meet the admission requirements listed below. This includes freshmen or first-time students, as well as transfer students.

Definition of an International Student

An F-1 (Student) Visa is required of all students who are not citizens of the United States, for study at Mercer University. An I-20 Form is issued to all accepted and approved international applicants. The I-20 Form is used to obtain the F-1 Visa. The University has been authorized under federal law to enroll non-immigrant alien students and to issue I-20 Forms.

English Language Requirements

Qualified students applying for undergraduate studies whose native language is not English may be eligible for admission into the University, if they can show proficiency in English. The University's minimum proficiency level is a score of 20 on each section of the Test of English as a Foreign Language (TOEFL). The minimum composite TOEFL score is 80. Qualified students with scores below these minimums, or who have no TOEFL score, may be conditionally admitted contingent upon their successful completion of English Language Institute (ELI) course(s) on the Atlanta campus. Placement testing is done upon arrival for conditionally admitted students who have no TOEFL score.
Refer to individual graduate school programs for international admission requirements. The English language ability of all students whose native language is not English will be evaluated upon arrival, for advising purposes.

**Admission Standards for International Undergraduate Students**

**Full Admission**
- Official high school transcript with official translations in English
- Proof of English proficiency as demonstrated by acceptable SAT or ACT test scores (official TOEFL scores of 80 IBT (internet based TOEFL), 213 CBT (computer based TOEFL), or 550 PBT (paper based TOEFL)) or successful completion of Mercer University English Language Institute course

Personal interviews may be required.

**Conditional Admission**
- Students who are accepted conditionally must complete the English Language Institute and successfully complete the Bridge Program with a grade point average of 2.5 or higher. To be accepted conditionally, students must submit the following.
  - Official high school transcript with official translation in English
  - Letter in English describing career plans and goals
  - Letters of recommendation in English (maximum of three) from former teachers, colleagues, or professionals who can comment on the student’s academic potential

**Transfer Students**
- Students who have completed at least one year of university-level work are not required to submit high school transcripts but are required to submit for evaluation official copies of all university transcripts with official copies in English. Depending upon the evaluation of these transcripts, students may be required to complete certain courses in the Bridge Program.

**Bridge Program**
- The Bridge Program assists international students in further developing the language skills needed for university-level course work. Classes are offered on the Cecil B. Day Campus of Mercer University in Atlanta through the College of Continuing and Professional Studies. Undergraduate students who are accepted conditionally into a Mercer program or a prospective graduate student who needs additional language instruction can take courses through the Bridge Program. Students enrolled in the Bridge Program must complete one mathematics course and all of the following courses.
  - FDLS 110. Culture of the University
  - FDLS 130. Language and Communication
  - ENGL 100. English as a Second Language
  - COMM 171. Introduction to Public Speaking

Students may take up to 30 credit hours of elective and general education courses in the Bridge Program before they declare an undergraduate major or a field of specialization.

**International Transfers**
- International transfer applicants must submit official transcripts for university-level work completed or attempted outside the United States, as well as official transcripts for courses
taken in the United States. All applicants must submit official documents in order to be considered for admission. If the official documents are written in a language other than English, it is the applicants’ responsibility to submit CERTIFIED English translations to the Office of International Admissions before being considered for admission. Students requiring NCAA Clearing House approval, or engineering students (see “School of Engineering” section) needing outside credential evaluations, should submit official transcripts in their native language in addition to official transcripts in English.

If a student wishes to transfer credits earned at a foreign institution to his/her record at Mercer, the student must supply the Registrar’s Office with an official copy (still sealed in the original envelope) of a credit evaluation from a reputable U.S. evaluation service; the evaluation should include all of the credits that the student wishes to transfer to Mercer. Once the Registrar’s Office receives an official evaluation, the student’s foreign credits will be reviewed to see if they are eligible for transfer to the student’s Mercer degree. Please note that the registrar makes the final decision when accepting credits from a foreign institution.

**Deposits and Insurance**

Accepted international students must pay the appropriate fees, which include a $500 enrollment deposit and orientation fee drawn on a U.S. bank or U.S. dollar account. Once enrolled, all F-1 and J-1 students must participate in the University Accident and Sickness Insurance Program, the cost of which is included in tuition fees. Coverage is for a 12-month period and is available for spouses and dependents of students. Exceptions can be made only if the student can present evidence of adequate, existing coverage.

**Immunization Policy**

The “Mercer University Student Health Form” is required and must be signed by a physician or other health care provider, and stamped with the provider’s name and address. No other immunization forms or physician records will be accepted. Students are encouraged to keep a photocopy of this completed form for their personal records. The Student Health Form is a Mercer document and will not be forwarded to other institutions.

**All students born after 1956** must provide a statement of immunization against Measles, Mumps and Rubella (MMR), giving the month and year of immunization. A statement of “up to date” is not sufficient. Two doses of Measles (Rubeola) vaccine are required. You must have been at least 12 months old when the first Measles dose was received. Previous diagnosis of disease is proof of immunity against Measles and Mumps (a physician’s statement is required) but not proof of Rubella.

If a student is unable to provide dates of immunization to Measles, Mumps and Rubella, he or she may document immunity by blood test at the student’s expense. If this testing shows no immunity to Measles, Mumps, or Rubella, the student may register following documentation of the first dose of MMR, with the second to follow in 30 days, if required.

Tuberculosis screening (within the past year) is required of all new students. Students at risk for TB will be required to have a PPD skin test (Mantoux). The tine tuberculosis test is not acceptable. Students should be tested regardless of prior BCG vaccination. Any student with a positive skin test will be required to provide a report of a normal chest x-ray (done after the positive PPD) to be eligible to register. A physician should evaluate individuals with a positive tuberculosis skin test.

Do not assume that childhood immunizations are adequate; requirements have changed during the past several years. Medical facilities in the U.S. and in other countries are required to keep records of vaccinations. Additional sources of immunization information include doctors’ offices, health departments, and schools. Students should make
copies of the completed health form for their own files, and then mail the original forms. Do not rely on health care providers, family members, or other colleges to mail the forms.

Exemptions from compliance with the immunization policy include:

1. Religious exemption, written on letterhead stationery, signed by a religious official and notarized.

2. Medical exemption, written on office stationery, and signed by a health care provider. The letter should state the reason for the exemption, and whether the exemption is permanent or temporary.

Immunizations for the following diseases are recommended, but not mandatory: chickenpox (varicella), hepatitis A, hepatitis B, polio, and tetanus. The most recent tetanus booster should have been within the past 10 years. Immunization against meningococcal meningitis is recommended for college students.

Some academic programs have additional immunization requirements. Students are advised to check with their College/School program for any additional requirements.

Health Insurance

Mercer students must maintain primary insurance coverage. Students, except those enrolled in the Regional Academic Centers or distance learning programs, are automatically enrolled in the University sponsored student health plan. There is a charge for this coverage. To have the charge removed from the Mercer account, a student must show evidence of enrollment in a personal insurance plan.

Information for Veterans and Others Eligible for Veterans Benefits

Individuals who contemplate enrollment and who are eligible for financial assistance through the U.S. Department of Veterans Affairs should contact the University’s Office of the Registrar.
Student Affairs

Student life is a vital part of the college experience. When extracurricular activities, programs, and organizations are tied closely to a student's academic experience, the impact on the student's learning can be profound. The Division of Student Affairs, led by the Vice President and Dean of Students, is charged with overseeing a majority of these extracurricular programs, and includes the following departments: Counseling and Psychological Services, Housing and Residence Life, Recreational Sports and Wellness, Campus Life (including Greek Life), Career Services, Disability Support Services, Student Health Center, and Student Support Services. Student Affairs offers a wide range of resources that promote intellectual, cultural, social, vocational, physical, psychological, and spiritual growth.

The Office of the Vice President and Dean of Students is located on the third floor of the Connell Student Center and operates as the primary location for information on student life. The Office of Judicial Education is also located in this office and is charged with implementing the Student Code of Conduct and adjudicating student conduct violations. Students are expected to abide by all rules and regulations of the University and to uphold the community standards of the institution. To obtain additional information on these policies and procedures, or to merely request a review of any non-academic student issue or grievance, please contact this office. For additional information: www2.mercer.edu/studentaffairs.

Student Government

Mercer University recognizes the significant role of students in institutional decision-making. Students in the University's schools and colleges serve with faculty and staff on many committees. Student government serves as the voice of the students and as a liaison with the administration and faculty.

The executive branch of the student government is comprised of seven student body officers and the chairpersons of the following standing committees: Academic Affairs, Student Life and Organizations, Fiscal Affairs, Campus Safety and Improvements, Contract Services, Public Relations and Elections, and Heritage Life. These committees are open to all students.

The legislative branch of student government is the senate, comprised of five representatives from each class and five senators at large. The senate represents the interests of students in social and academic matters, and funds projects and programs of benefit to the student body and the larger community.

The Honor System

Academic integrity at Mercer is maintained through the Honor System. The Honor System at Mercer imposes on each student the responsibility for his or her own honest behavior and requires each student to report any violations of the Honor Code about which he or she has information. The Honor System was instituted in 1954 and has been in operation since that time. Its success has been the result of students' respect and concern.

An undergraduate student honor council administers the Honor System for undergraduates. The Honor System for graduate students is administered by an honor committee that is governed by policies established by the Graduate Council of Mercer University. Decisions and sanctions of the Honor Council and Honor Committee are binding, but may be appealed to the President of the University.

By the act of entering Mercer University, each student consents to participate fully in the Mercer Honor System. Furthermore, each student is personally responsible for knowing the...
rights and obligations set forth by the Honor System. A student is also expected to cooperate with all proceedings related to the Honor System. Students who refuse to accept the Honor System will be denied admission.

QuadWorks

QuadWorks is a comprehensive co-curricular programming board responsible for developing and presenting educational, social, and cultural programs that complement Mercer’s educational community. The student run committees provide programs such as Mercer Madness, Homecoming, concerts, comedians, Midnight Movies, as well as opportunities for students to showcase their talents. For additional information: www.mercer.edu/quadworks.

Student Organizations

The Mercer community has more than one hundred active student organizations. These organizations range from departmental, religious, or club sport to special interest, governmental and social. A full list of organizations, including contact information and meeting times, is available on the Campus Life website. Student organizations and community opportunities are showcased during Bear Fair. For more information: www2.mercer.edu/CampusLife/Organizations.

Social Greek Organizations. National fraternities and sororities have been a part of the Mercer community since the 1870’s. The following fraternities have chapters on campus: Alpha Phi Alpha, Alpha Tau Omega, Kappa Alpha, Kappa Alpha Psi, Kappa Sigma, Lambda Chi Alpha, Phi Delta Theta, Pi Kappa Phi, Sigma Alpha Epsilon, and Sigma Nu. The sororities are: Alpha Delta Pi, Alpha Gamma Delta, Chi Omega, Delta Sigma Theta, Phi Mu, and Zeta Phi Beta.

Media Relation Student Organizations. Students publish The Cluster (the campus newspaper) and the Dulcimer (the University’s literary magazine). Mercer also has a student-run radio station, and a closed-circuit television station, known as Mercer 99, which shows movies and locally created content.

For more information about any of these student organizations, contact the Office of Campus Life at (478) 301-2868.

Honor Societies

Phi Kappa Phi is a national honor society with the primary objective of recognizing and encouraging superior scholarship in all fields of study. The University's chapter was installed in 1982. Membership is open only to juniors and seniors who have demonstrated unusual achievement in scholarship. Phi Eta Sigma is a national honor society open to freshmen of good character who earn a grade point average of at least 3.5 during one or two semesters of the freshman year. Omicron Delta Kappa National Leadership Honor Society selects junior and senior students on the basis of leadership, scholarship, and service. Order of Omega is a national honor society for Greek organizations, selecting juniors and seniors on the basis of exceptional scholarship, leadership, and service.

A number of other nationally affiliated honor societies have been established: Beta Beta Beta (biology), Delta Sigma Pi (business), Kappa Delta Epsilon (education), Phi Alpha Theta (history), Pi Sigma Alpha (political science), and Psi Chi (psychology).

For more information about any of these student organizations, contact the Office of Campus Life at (478) 301-2868.
Leadership and Volunteerism

The Center for Leadership and Volunteerism is responsible for coordinating student extracurricular leadership and volunteer activities. The Center promotes the concept of Servant Leadership by providing students with chances to become involved in service and leadership roles within the Mercer and Macon communities. The Center works closely with the Office of Campus Life and other offices on campus to coordinate and promote leadership workshops, speakers and a leadership library available to students. The Center also coordinates community service opportunities for student organizations and individual students. For more information please visit us at http://www2.mercer.edu/CommunityEngagement/Volunteerism/LeadershipandVolunteerism.htm

Recreational Sports and Wellness

The Recreational Sports and Wellness Office is located in the University Center and oversees five programs: Aquatics, Club Sports, Fitness/Wellness, Intramural Sports, and Mercer Outdoors. Each of these programs gives students, faculty, and staff the opportunity to participate in a variety of activities.

Mercer Aquatics manages the use of the two pools on the Macon campus. The University Center Pool is located on the lower level of the Fitness Center and is open for lap swims and group aquatic exercise.

Plunkett Pool, located behind Plunkett Hall, is open to the Mercer community for recreational use. Students, faculty, and staff members can use the pool for themselves and their families by presenting a valid Bear Card. Children under the age of 16 are not allowed to enter the pool area without an adult and must be supervised at all times. Plunkett Pool is a seasonal facility and is open from May to September.

Sport Clubs offer unique opportunities to participate in recreational activities. These clubs are separate from the intramural programs offered at Mercer and are competitive and/or recreational in nature. Several of the clubs' activities are not offered through Mercer's regular recreational programming, so they give the Mercer community a unique opportunity to participate in and learn something new. Currently, there are twenty club sports on campus, and we encourage new clubs to form.

The Fitness/Wellness Program promotes health and wellness throughout the campus community by providing services, resources, and opportunities to actively engage students in healthy lifestyle behaviors. Activities offered include: a variety of group fitness classes; health promotion and educational programs on current health topics and trends; fitness incentive programs; individual wellness counseling; and personal training.

Intramural Sports provides a comprehensive and diverse program of competitive and recreational activities. The program reflects the needs and interest of currently enrolled students, faculty and staff members. More than thirty activities are offered featuring team sports, individual/dual sports, meets and special events.

Outdoor Adventures is committed to providing excellent travel opportunities that challenge self-perceived limits, are fun, and that build a strong appreciation for the natural environment. Small group wilderness experiences have a unique impact on the lives of our participants.

Employment opportunities – Recreational Sports and Wellness hires over 100 students per year for positions as lifeguards, group exercise instructors, intramural officials, personal trainers, scorekeepers, trip leaders, and ropes course facilitators. The benefits of working for Recreational Sports include flexible hours, a great atmosphere, leadership opportunities, the convenience of having a job on campus, and extra income.
Intercollegiate Athletics

The University provides programs of intercollegiate competition in men's basketball, baseball, tennis, golf, soccer, cross-country, and rifle and women's basketball, tennis, soccer, softball, volleyball, cross-country, and golf. Rifle is a co-ed sport. Mercer is a Division I member of the National Collegiate Athletic Association (NCAA) and the Atlantic Sun Conference. Copies of the Equity in Athletics Disclosure Act and the annual NCAA Graduation Rate Report are on file in the Office of the Registrar.

Religious Life

Opportunities for significant spiritual growth are integral parts of Mercer University's campus life. University Worship is provided for the entire Mercer community in Newton Sanctuary each Wednesday morning. Voluntary involvement in religious activities is fostered by a broad spectrum of denominational organizations. The Religious Life Center is a hub of religious life on campus; students of different faiths meet weekly in the center for inspiration and fellowship.

The following organizations are available: the Baptist Collegiate Ministries, Cooperative Student Fellowship, Presbyterian Reformed University Fellowship, Episcopal Canterbury Club, Catholic Newman Ministry, Methodist Student Fellowship, A.G.A.P.E. (All God's Anointed People Evangelizing), and V.O.I.C.E. (Vocational Opportunities in Christian Experience). V.O.I.C.E. is a student-led organization committed to helping students explore their calling to full-time Christian service, and the group meets monthly during the school year.

Cultural Activities

The Townsend School of Music presents more than seventy concerts each year in the Neva Langley Fickling Hall, Newton Hall, and the Grand Opera House. The Music at Mercer Concert Series offers students the opportunity to hear a variety of world-class performing artists in a university setting. Also, the concert series features the School of Music's faculty, as well as guest artists, in recital. Featured ensembles include the Mercer Singers, the Mercer University Orchestra, Jazz Ensemble, and Wind Ensemble.

Counseling and Psychological Services

Counseling and Psychological Services (CAPS), located behind MEP residence hall, seeks to encourage students in their attainment of educational and personal goals by creating opportunities to develop self-knowledge and skills, and remediate difficulties within a welcoming and relaxed atmosphere. Services include personal counseling, outreach programming, crisis intervention, and academic assistance. Consultation is provided to the Mercer community. Referrals to off-campus mental health service providers are made when appropriate and upon students' request. CAPS also serves as a field placement site for psychology students, and sponsors Mercer University Peer Educators (MUPE). For more information, visit the website at www.mercer.edu/counseling or phone 478-301-2862.

Career Services

Career Services provides support to students and alumni in the areas of decision-making and networking. Guidance is available for those who wish to identify or clarify their academic major, vocation, or career path. Students and alumni can view and be informed of ongoing full-time, part-time, and internship opportunities by registering on-line with SUC-
CESSTRAK. Career Services coordinates annual career days, an academic majors fair, a senior kick-off event, and presentations on resume design and other job search topics. For more information, visit the website at www.mercer.edu/career.

Practical Experience: Cooperative Education and Internships

Mercer University offers a variety of opportunities for its students to obtain practical experience through cooperative education and internships. Students integrate work in the classroom with practical experience by alternating periods of regular on-campus coursework with periods of employment in industry, business, or government. Mercer University encourages students to view the employment phases of the program not as mere practicums, but rather as essential to the educational process. The University thus requires that students maintain satisfactory standards of performance in their jobs.

Work assignments exist or can be developed in almost all areas of study. Through diversified types of employment, students acquire a wide range of experiences in fields related to their majors. The level of responsibility and expertise required for a job increases to match a student's progress through the academic curriculum, thus assuring a stimulating, challenging employment situation. Salaries are established by individual employers and often increase as a student progresses academically.

Students who are formally admitted into a cooperative education program may be certified as full-time students during terms of employment, for enrollment verification purposes. Students registering for cooperative education in the College of Liberal Arts and the Stetson School of Business and Economics sign up for CED courses (CED 190, 290, 390, 490). Students receive one hour of credit for each semester of successful enrollment in the cooperative education program.

The prerequisites for participation are: a minimum GPA of 2.5; approval of the program faculty advisor in the student's home school; and satisfactory residency requirements.

Practical experiences that provide credit may take one of four forms:

1. Internships: One semester or summer work period
2. Alternating: Semester or summer work periods alternated with academic semesters
3. Integrated (parallel): Full-time or part-time course work and work periods. Students should be enrolled in a minimum of six hours of non-CED (cooperative education) credit and work a minimum of 15 hours a week. Students enrolled full-time should work no more than 20-25 hours a week.
4. Combination alternating/parallel: Combines the features of the full-time alternating and includes one or more parallel rotation. Students should contact Career Services for specific details and assistance.

The School of Engineering also encourages students to participate in experiential education. Please refer to the engineering course description section in this catalog to learn more about the specific requirements.

Orientation

The Office of Academic and Advising Services coordinates comprehensive orientation programs for all new students entering Mercer. Summer Orientation gives new students and their families the opportunity to learn more about Mercer's academic programs and campus resources. Students also meet with an academic advisor regarding course registration during this time. All incoming students are encouraged to attend Summer Orientation.
Fall Orientation begins several days prior to the start of classes and is mandatory for all new first-year students. During Fall Orientation, students acclimate to campus by attending academic meetings and social activities with their orientation group. The Office of Academic and Advising Services also coordinates orientation programs at the beginning of each semester for Mercer's incoming transfer students.

The Office of Academic and Advising Services

The Office of Academic and Advising Services provides programs and services to support the academic success of students. Located in Penfield Hall, staff members coordinate the advising of new students, provide academic progress reports, sponsor pre-professional and Sophomore Signature programs and coordinate the first-year student course, University 101: The New Student Experience. Additionally, the Office serves as an information, training, evaluation and resource center for campus academic advisors and instructors. Academic support is provided to all interested students each semester through academic counseling and end-of-semester academic intervention plans. The membership and programs of Phi Eta Sigma, the first-year student honor society, and the undergraduate Honors Program are coordinated by the Office.

Academic Resource Center (ARC)

The Academic Resource Center (ARC) provides tutoring, study space, and structured guidance to help students improve their academic performance and excel in demanding courses. In addition to college study skills classes (LSK 185 and 186), individual tutors are available to assist students in major subject areas. The ARC also provides campus-wide coordination of Supplemental Instruction, an intensive group tutoring program for selected courses.

The ARC's computer lab provides word processing, electronic mail, Internet access, and software programs to enhance student success. During fall and spring semesters, the ARC maintains an open-access lab with the following hours:

- Sunday: 2 p.m. – 3 a.m.
- Monday – Thursday: 8 a.m. – 3 a.m.
- Friday: 8 a.m. – 5 p.m.

All services are provided free of charge. For more information, visit the ARC website at http://www.mercer.edu/arc.

Library Services

The primary mission of Mercer University's libraries is to serve as a gateway of information resources by providing strong collections and innovative, technology-rich patron services to support the present and future educational needs of the University's community. The four Mercer libraries and three Regional Academic Centers' library collections offer a wide variety of print, non-print, and electronic resources, including Web-based library catalogs and remotely accessible full-text resources.

Mercer is a full participant in GALILEO, the award-winning statewide library network of full-text resources, e-books, and indexes that brings a full array of information resources to the desktop. Combined, the University's libraries are a powerful part of the curricula of the schools and colleges.

The Jack Tarver Library (http://tarver.mercer.edu) embraces its mission as a partner in Mercer University's educational enterprise, as symbolized by the library's motto, "Learning Happens Here." As a physical space and as a virtual presence, the library serves the information and research needs of Mercer's community.
Tarver Library, in Macon, primarily serves the Macon-based programs in the College of Liberal Arts, Tift College of Education, School of Engineering, Stetson School of Business, the College of Continuing and Professional Studies, and the Townsend School of Music. Tarver Library also serves as a major information resource for the Regional Academic Centers' programs, supplying books and articles via a courier service and electronic desktop delivery.

Occupied in 1989, Tarver Library was dedicated in 2000 in memory of Mercer alumnus Jack Tarver, a prominent journalist and businessman. The building seats 750 patrons and holds 500,000 volumes. Twenty-three group study rooms support collaborative work and learning activities. Computers and wireless connectivity are available for patrons to access the web-based catalog, databases, and full-text resources, including JSTOR, and Web of Knowledge. Mercer's students and faculty enjoy access, via their BearCards, to the 24-hour study room on the lower level of the building, for those hours when the library is closed.

The library is committed to ensuring that Mercer students achieve appropriate information-seeking skills for academic work and lifelong learning. The Chappell Classroom, an electronic classroom near the reference desk, supports hands-on, course-based instruction programs that are designed and delivered by librarians to teach specific research skills for course assignments. The library also offers research clinics each semester to provide intensive individual attention that supplements the reference desk assistance available every day.

Tarver Library's Special Collections houses a rich Mercer University archives and is the official repository of the Baptist archives of the Georgia Baptist Historical Commission. Special Collections supports the local, national, and international research community in seeking information on Baptist life and Mercer's place in the history of Baptist higher education.

The Monroe F. Swilley Jr. Library in Atlanta serves the Mercer University College of Pharmacy and Health Sciences; McAfee School of Theology; Georgia Baptist College of Nursing; and the Atlanta programs of the Stetson School of Business and Economics, Tift College of Education, the College of Continuing and Professional Studies, and the English Language Institute.

The Medical Library and Peyton T. Anderson Learning Resources Center, located in the School of Medicine, offer a variety of materials that support the Medical School's problem-based curriculum, graduate programs, faculty research and development, and community health interests. The library's Clinical Campus Branch is maintained at the Health Sciences Library of Memorial Health University Medical Center in Savannah, GA, one of the medical school's teaching hospitals.

The Furman Smith Law Library, which is accessible to law students 24 hours a day, is the center for legal research information at Mercer's law school. The law library's staff of sixteen includes professional librarians who have both law degrees and master's degrees in library and information science. The library's staff provides instruction in the required "Introduction to Legal Research" course, as well as the elective "Advanced Legal Research" course, which further develops a lawyer's ability to critically select and use a wide range of legal information sources. Mercer law librarians also teach specialized legal research, as part of doctrinal courses, on topics such as labor, securities, tax, and environmental law. The library's collection includes judicial, legislative, administrative, and practice materials, in electronic and print formats, for all jurisdictions, with an emphasis on Georgia and the Southeast. The library and computer lab form a fully integrated, functional unit, and Mercer law students utilize desktop computers and network drops to access the law school's network.
Upward Bound and Upward Bound-Baldwin, Hancock, Washington

Upward Bound, funded completely by a grant from the U.S. Department of Education and sponsored by Mercer University, is a pre-college program for high school students from income-specific or disadvantaged backgrounds. The program is designed especially for those students who have demonstrated aptitude and/or potential for study beyond high school, and includes an extensive summer component. Upward Bound is one of three Mercer University TRIO Programs.

Educational Opportunity Center

The Educational Opportunity Center (EOC), a program funded by a grant from the U.S. Department of Education, promotes postsecondary education among adults who qualify. An emphasis is placed on providing assistance with the postsecondary application process and with obtaining financial aid. Pre-college assistance is also offered in the areas of academic assessment and remediation, career counseling, and study skills assistance. EOC is one of the three Mercer University TRIO Programs.

Disability Services

Mercer University is committed to making its programs, services and activities fully accessible to students with disabilities. Students requesting accommodations for a diagnosed physical, medical, psychological or learning disability must first self-identify by registering with Disability Support Services. Appropriate and reasonable accommodations will be determined on a case-by-case basis upon review of the submitted documentation. Further information on policies, procedures and documentation requirements may be found on the Disability Support Services website at: http://www.mercer.edu/stu_support/2swd.htm or by contacting Carole Burrowbridge, the Disability Support Services Coordinator, at 301-2778. The office is located on the 3rd floor of the Connell Student Center.

Minority Affairs

The Minority Affairs Office is committed to providing opportunities for Mercer University minority students to be actively engaged in the "Mercer Experience" and to develop a sense of community while at Mercer. The services provided through the Minority Mentoring Program are: free tutorial assistance in most freshman courses; a personal mentor; academic, social and cultural workshops and trips; an early-arrival freshman retreat; and access to local minority professionals in the student's general area of study. The Minority Affairs Office also provides support and leadership to various student organizations, such as the Organization of Black Students and the Minority Mentor Program.

Housing and Residence Life

Mercer University recognizes that a valuable aspect of one's college education is the experience of living on campus. The Department of Housing and Residence Life promotes the principles of respect and responsibility within the Mercer community, and provides services and activities to assist resident students. All first-year and sophomore students under 21 years of age are required to live on campus and purchase a meal plan. Exceptions include those students living with parents or guardians within a reasonable commuting distance, (this includes the following counties: Bibb, Crawford, Houston, Jones, Monroe, Peach, Twiggs) and students who are married or are single parents. Resident students are required to sign a residence hall contract for the academic year. All Housing facilities are
closed during the Christmas Holidays. Applications for residence hall rooms and apartments are available through the Department of Housing and Residence Life. For additional information about living on campus, please visit our website: www2.mercer.edu/housing/Macon.

Judicial Education

The Office of Judicial Education adjudicates all non-academic violations of University rules and regulations by individual students, as well as student organizations. Students or organizations that violate these regulations are subject to penalties ranging from written reprimand to suspension or expulsion.

A description of the judicial process appears in the Lair and can also be found at: www2.mercer.edu/studentaffairs/jshandbook.htm.

Dining Services

Twenty-one (21) meals are served each week at the Fresh Food Company, which is Mercer University's on-campus restaurant. The Fresh Food Company, located in the Connell Student Center, offers all-you-care-to-eat buffet-style dining. Breakfast, lunch, and dinner are offered Monday through Friday from 7 a.m. – 8 p.m. On Saturday and Sunday, a continental breakfast is served from 9 a.m. until 11 a.m., lunch from 11 a.m. until 2 p.m., dinner from 4:30 p.m. until 7 p.m. on Saturday and dinner from 4:30 p.m. until 8 p.m. on Sunday. The Late Night Snacking option is available Sunday-Thursday between 8 p.m. and 10 p.m.

The University Center Food Court is another dining area on campus. Here, students will find Subway, Chick-fil-A, and Grille Works, plus a large selection of “grab and go” items. Also located in the University Center is the Bear Rock Café. To learn more about the food services available at Mercer, you may contact Food Services at (478) 301-2925 or on-line at mercerdining.com.

All freshmen and sophomores living in residence halls and apartments on campus are required to purchase a meal membership, in accordance with Mercer University’s policy. Changes to meal plan assignments must be made in the first ten calendar days of the semester. To learn more about the various plans available and their specific costs, contact Auxiliary Services at (478) 301-2741.

The Bear Card

Mercer University provides all students with a multi-service picture identification card: the Bear Card. This electronically encoded card allows students access to dining halls, libraries, the residence hall in which the student lives, the University Center, and other designated facilities on campus. The Bear Card also serves as a University debit card, giving students the option to deposit money into their Bear Bucks account. It is a safe and easy way to pay for meals at food service locations, buy your books and school supplies in the bookstore, do laundry in the residence halls, make purchases at vending and copy machines, and make purchases at a growing number of Bear Card merchants in the city.

If you have a Wachovia checking account, your Bear Card can be linked to your account and used as your ATM card and/or check card. To learn more about the Bear Card, call Auxiliary Services at (478) 301-2929.

To activate the debit card function of the identification card, students simply make a deposit on their Bear Bucks account at the Bursar’s Office, on-line at bearcardoffice.com, at a value transfer station (VTS), or in the Office of Auxiliary Services. If the Bear Card is lost or stolen, it is invalidated immediately upon the report of the loss.
Telecommunications

In-Room telephone service is available to all students living on campus that includes a private line, call waiting, three-way calling and caller id. Please contact the Office of Auxiliary Services at 478-301-2741 for further information.

Campus Mail Box

All students are assigned a campus mail box. Official mail from the University to the student will be sent to the campus box, with the exception of semester billing statements; these items are normally mailed to the permanent home address. Students are expected to check their campus box regularly for official University correspondence.

Mercer E-Mail

All students are assigned a Mercer e-mail address. This is the address that will be used for official University e-mail correspondence to students.

Student Health Center

The Student Health Center is the primary provider of health services for all Mercer students. It is staffed by Registered Nurses who assess all patients and determine the level of care that is necessary. A student may be treated immediately by a nurse, referred to Urgent Care, or an appointment may be scheduled with a Student Health physician, or a physician outside of Student Health.

The Student Health Center is open Monday-Friday, 8 a.m.-12 noon and 1 p.m.- 5 p.m. Call (478) 301-2696 for appointments or information.

Confidentiality: All visits to the Student Health Center are confidential. No information will be released to anyone, including University officials, professors, parents, or spouses, without the written consent of the patient.

Class Excuses: Class attendance is an issue between the professor and student. Therefore, no medical excuses for class absences will be issued.

Immunization Policy: University health requirements are included in the “Entering the University” portion of this catalog.

General medical information is available on the Student Health Center web site at www.mercer.edu.shc.
### Financial Information

**2008-09 Academic Year Only**  
**Undergraduate Programs**

<table>
<thead>
<tr>
<th></th>
<th>Each Semester</th>
<th>Combined Fall/Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees</td>
<td>$14,250</td>
<td>$28,500</td>
</tr>
<tr>
<td>Meal Ticket (Required of all residence hall students)</td>
<td>from $1,065 to $2,175</td>
<td>from $2,130 to $4,350</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence Hall (rates may vary)</td>
<td>from $2,050 to $2,775</td>
<td>from $4,100 to $5,550</td>
</tr>
<tr>
<td>Apartments</td>
<td>from $2,250 to $3,350</td>
<td>from $4,500 to $6,700</td>
</tr>
<tr>
<td>Greek Village</td>
<td>from $2,600 to $3,200</td>
<td>from $5,200 to $6,400</td>
</tr>
</tbody>
</table>

The tuition and fees listed above cover semester course loads from 12 through 20 credit hours. Course loads under 12 credit hours will be charged on a per-credit-hour basis. Any course load greater than 20 hours will be charged at the above listed full-time rate PLUS a per-credit-hour charge for each hour greater than 20 credit hours. These rates and the 12 through 20 credit hour rate structure are applicable to the Fall through Spring academic year. Summer rates are charged on a strict per-hour basis.

Per-credit-hour rate for the 2008-09 academic year: $950

### Graduate Programs and Professional Programs

#### Townsend School of Music
- Master of Sacred Music: $550/hr

#### Stetson School of Business and Economics
- Master of Business Administration: $600/hr

#### Tift College of Education
- Master of Education (MED) and Specialist in Education: $421/hr

#### School of Medicine
- Doctor of Medicine - First Year: $37,030
- Doctor of Medicine - Second Year: $37,030
- Doctor of Medicine - Third Year: $37,030
- Doctor of Medicine - Fourth Year: $30,220
- Master of Public Health (MPH): $765/hr
- Master of Family Therapy (MSR/MFT): $816/hr
- Master of Science in Anesthesia (MSA): $901/hr

#### School of Engineering
- Master of Engineering: $714/hr
School of Law

First Year ................................................................. $32,990
Second Year ............................................................... $32,990
Third Year ................................................................. $29,946

Miscellaneous Fees

Applied Music: Voice, Piano, Organ, Band Instrument, Composition
One half-hour lesson per week .................................... $218
One sixty-minute lesson per week ............................ $436
(These fees are in addition to the course tuition charged.)

Tift College of Education special fees
Reciprocity Fee ......................................................... $600
Student teaching (EDUC 492, 496, 498) ...................... $250
Fieldwork (EDUC 102, 201, 202, 311, 313, 398, 399) .......... $100
Practica (EDUC 480, 485, 488) ................................ $150
(These fees are in addition to the course tuition charged.)

Audit Fee (for part-time students) ......................... $150 each course
Audit Fee (for full-time students) ...................... no charge for one audit per semester
........................................................................ $150 each additional audit

Laboratory Fee (charged each semester per designated laboratory
class) ................................................................. $75
(The specific courses to which the fee applies will be designated in the
Annual Schedule of Classes. Fees may be assessed for some courses
not yet determined and included in this catalog. Physical Education Lab
Fees vary widely based on the activity.)

Facilities and Technology Fee:
Undergraduate students enrolled
12 hours or more ....................................................... $100/semester
Undergraduate students enrolled
11 hours or less ....................................................... $8.50 per credit hour
Graduate and Prof. students enrolled 9 hours or more ...... $100/semester
Graduate and Prof. students enrolled 8 hours or less ....... $12.00 per credit hour

Late Registration Fee ..................................................... $25
Late Fee Payment ........................................................ $25
Registration Reinstatement Fee ................................. $50
Payment Plan Enrollment Fee (per semester) ............... $35
Dissertation Binding Fee .............................................. $40
Thesis Binding Fee ...................................................... $30

Returned Check ......................................................... $25 or 5% of the face value of the check, whichever
is greater. Returned checks must be paid by cash, money order, or certi-
fied check. (Note: following two returned checks, students are placed on
a "cash only basis.")

Transcript Related Fees
Transcript Fee (for two-day service) ........................... no charge
Transcript on Demand (immediate service) ................ $10
Document Faxing Fee .................................................. $5
Overnight Service Fee/per address
(standard not priority) ............................................... $25
Credit-by-Examination . . . . . . . . . . . . . . Assessed at half the credit-hour rate for each credit hour awarded

Co-Op Fees . . . . . . . . . . . . . . Contact the appropriate school for additional information

Please note that the above listed tuition rates, room/board charges, and miscellaneous fees are for the 2007-2008 academic year and are subject to change without prior notice.

Payment of Tuition and Fees

All tuition and fees are due and payable each semester by the first day of classes. Only those students who register for a given semester during early registration will be billed for the semester in advance. New undergraduate students will be pre-billed, provided they have completed early registration for class. Accounts may later be adjusted and re-billed based on changes in class schedules, housing arrangements, meal plans, and financial aid awards. Students who are not registered early and billed prior to the beginning of the semester must be prepared to pay tuition and fees at the time they register for classes.

If a student is registered for a particular semester but elects not to attend, the student must officially notify the Office of the Registrar in writing. Non-attendance does not cancel charges, and the student will be held financially accountable for all classes for which s/he is registered.

Please Note: If payment arrangements have not been made by the end of the drop/add period, the student’s registration is subject to cancellation. The University reserves the right to deny access to, or use of, University facilities to any student with an outstanding bill.

Payment of tuition and fees is the responsibility of the student, regardless of sponsorship by a third party or his or her employer.

Contractual Obligations

The registration of a student signifies the assumption of definite financial obligations between himself or herself and the University.

Method of Payment

Tuition, special fees, housing, board, and other assessments may be paid by cash, check, money order (made payable to Mercer University), or by Visa, MasterCard, Discover, and American Express. Credit card payments may be made online through BearPort. Payment is due by the first day of classes each semester.

Students will be notified of their anticipated amount of financial aid by way of award notifications or letters from the Office of Student Financial Planning. Those students whose financial aid has not been awarded prior to the first day of class will be required sign a Tuition Deferment for Pending Financial Aid Form, a binding agreement to pay any portion of tuition and fees not covered by financial aid.

Third Party Payments

Special billing arrangements involving third parties must be approved by the Office of the Bursar prior to the start of each semester, and applicable vouchers and payment contracts must be received by the last day of the drop/add period. All outstanding balances must be paid 30 days from the last day of classes for a semester. A student using a third-party payment arrangement will be held liable for payment of his or her account in the event that the third party does not pay.
V A Benefits

Individuals who are contemplating enrollment and are eligible to receive financial assistance through the U.S. Department of Veterans Affairs, should contact the University's Office of the Registrar regarding VA certification. VA recipients should not assume that contacting the Registrar relieves them of payment obligations. Unless the student is eligible to participate in the VA Chapter 31 Benefits Program (allowing schools to bill the government and receive direct payment) the benefits are paid to the student, not the University. Therefore, students who receive VA benefits must make appropriate payment arrangements with the Office of the Bursar not later than the first day of class each semester.

Payment Plans

In an ongoing effort to assist our students and their families with budgeting educational expenses, Mercer offers the Monthly Payment Plan, which allows a student to pay tuition in monthly installments. Also, students who receive tuition reimbursements from their companies may be eligible to participate in the Deferred Payment Plan. More information concerning these payment options may be obtained by visiting our website, at www.mercer.edu/bursar, or by contacting the Office of the Bursar on the Macon campus.

Student Insurance

All students are required to carry health insurance while enrolled at Mercer University. Each semester, an insurance premium is assessed at the time of registration. Those who do not wish to purchase the school policy must provide proof of insurance by signing on to BearPort and completing the Insurance Waiver Screen. This will remove the charge from the student's account. If the waiver is not entered each semester by the published deadline, the student will be held responsible for payment of the non-refundable insurance premium.

Debts

No records are released and no student is considered by the University as a candidate for graduation until all indebtedness to the University has been settled. The Bursar's Office is authorized to apply to the student's debt any funds needed from the student's scholarship, loans, state grants, or any other student financial aid. Students with outstanding indebtedness will not be eligible to register for subsequent semesters and may be subject to late penalties and interest charges. Unpaid student accounts that are deemed delinquent may be placed with a collection agency. If such action is required, the student will be liable for any costs associated with such action and should understand that collection costs will be a minimum of 33 1/3% or up to 67% of the outstanding balance.

Refund Policy

A student is not eligible for any refund if (1) the student fails to formally withdraw; (2) the student is suspended for disciplinary reasons; (3) the student withdraws when a disciplinary action or honor code violation is pending; or (4) the student withdraws from a class or classes, but does not totally withdraw from all classes for the semester. A student who FORMALLY RESIGNS from school prior to the last day of the drop/add period for any term of enrollment will be entitled to a 100% credit of tuition and fees charged for the current term. A student who FORMALLY RESIGNS from school after this date may be entitled to a prorated credit of the tuition and fee charges, if certain criteria are met as described in this policy. The criteria for the Mercer Institutional Refund Policy are based upon federal mandates established by the Federal Return Policy, which took effect on all Mercer campuses on August 15,
2000, replacing all existing refund policies throughout the University. The Policy applies whether or not Title IV awards are involved.

Mercer University will maintain a fair and equitable refund policy by adherence to this Institutional Refund Policy in all programs, in all schools, and on all campuses. This policy is subject to change if there are future changes to the Federal Return Policy or other federal, state, accrediting agency, or institutional policies with which it may conflict.

To FORMALLY RESIGN, a student must drop or withdraw from all courses for the term by (1.) personally completing and returning an official Term Withdrawal Form obtained from his/her school's Registrar's Office (2.) phoning his/her school's Registrar's Office and having an official Term Withdrawal Form completed for him/her. The completed form must be received in the Registrar's Office before the resignation process can be finalized. Refund calculations will be based upon the date the Term Withdrawal Form is received in the Registrar's Office.

No charges are assessed for housing or meals when a student resigns from the University prior to the first day of classes for a term. When a student resigns after the end of the official drop/add period, dormitory housing and meal plan refunds are calculated based on the percentages allowable under the Federal Return Policy Refund Schedule. Additional charges for housing and meals will be assessed on a prorated basis from the time of withdrawal until the student vacates the room and returns his/her keys and keycard. Once all calculations are complete, the Office of the Bursar will bill the student for any outstanding balance. When the University has assessed charges in error, a full credit and/or refund of the charges will be made. Financial aid awards and disbursements for students who formally resign from the University after the last day of drop/add each term will be returned to the original source of funds, in accordance with the Federal Return Policy.

Any exception to the Refund Policy will require a written appeal by the student to the Refund Appeals Committee. Students enrolled at the Macon Campus and the Regional Academic Centers must submit letters of appeal along with any pertinent documentation to the Office of the Bursar by the beginning of the following semester. Decisions of the Refund Appeals Committee are final.

If a student ceases attendance without notifying the University, a Federal statutory provision allows the University to use the midpoint of the payment period as the withdrawal date for calculating the return of financial aid funds. Otherwise, the University may use the student's last verifiable day of academically related activity if it can document the student's attendance. A calculation for the return of federal funds will be completed within 30 days of the school's determination that a student has ceased attendance without proper notification. Any financial aid disbursements, which must be returned to their original source of funding, will then become immediately due and payable by the student to the University and, in some cases, to the U.S. Department of Education.

The following resignation calculation will be used to determine the prorated amount of tuition and fees to be credited to the student's account and the amount of financial aid to be returned to its source programs:

\[
\text{The total number of calendar days attended by the student} = \frac{\text{Percentage to be retained}}{\text{The total number of calendar days in the term of enrollment}}
\]

The total number of calendar days includes all days beginning with the first day of classes and ending with the last day of exams for the student's official program of study, excluding scheduled breaks of at least five consecutive days or more.

When the percentage to be retained is equal to or greater than 60%, NO tuition credit or refund of Title IV funds is required by the Mercer Institutional Refund Policy or the Federal Return Policy.
Total tuition and fees for the term of enrollment X (100 - percentage to be retained) =
Total tuition and fees to be credited to the student's account
Total amount of Title IV Financial Aid disbursed X (100 - percentage to be retained) =
Total Title IV Financial Aid to be returned**

**In most cases, the University is required to return only the portion of federal financial aid that has been paid toward institutional charges. Any funds refunded to the student prior to resignation could be repayable by the student to the University or the U.S. Dept. of Education. Should the University be required to return federal financial aid funds in excess of those retained for tuition and fees, then the student would be immediately responsible for payment back to the University for the full amount of this excess refund.

Total amount to be returned to Non-Title IV funds = Total tuition and fees to be credited to the student's account less the total Title IV Financial Aid to be returned.

Federal Title IV financial aid funds must be returned in the following order:
1. Loans: –Federal Unsubsidized
   –Federal Subsidized
   –Federal Perkins
   –Federal PLUS
2. Grants (& Other): –Federal Pell
   –FSEOG
   –Other Title IV (excluding college work study earnings)

Non-Title IV financial aid funds will be returned in the following order:
1. Mercer institutionally-funded loans
   Mercer institutionally-funded grants/scholarships
2. Mercer endowment-funded loans
   Mercer endowment-funded grants/scholarships
3. State and other loans
   State and other grants/scholarships
4. Student/parent payments

Sample Refund Calculations:

First Day of Class = August 22nd
Last Day of Exams = December 18th
Holidays = Labor Day, September 3rd
           Fall Break, October 8th and 9th
           Thanksgiving Break, November 21st - 23rd

Number of calendar days between August 22 and December 18 = 119 days
Number of scheduled breaks lasting five consecutive calendar days or longer = 5 days
Total calendar days in this enrollment period = 114 days

Resignation Scenario #1: A graduate student formally resigns in the Registrar's Office on September 17th.

Typical Charges: $1,959 Graduate Tuition
Financial Aid Disbursed: $3,000 Federal Subsidized Direct Loan, of which $1,041 has been refunded to the student.

Calculation: Number of calendar days between August 22 (First Day of Class) and September 17 (the date of Formal Resignation) = **27 days**

Percentage of charges to be retained* = \( \frac{27 \text{ days}}{114 \text{ days}} \approx 0.2368 \) or 23.7%

Amount of tuition earned by the institution = $1,959 x 23.7% = $464.28

Amount of tuition to be credited to the student's account = $1,959 - $464.28 = $1,494.72

Amount of Title IV funds earned by student = $3,000 x 23.7% = $711

Amount of Title IV fund to be returned to the Direct Loan Program = $3,000 - $711 = $2,289

Amount of Title IV funds to be returned by the University = $1,959 x (100-23.7%) = $1,494.72

Amount of Title IV funds to be returned by the student = Since the student received a Direct Loan, the student will be responsible for the repayment of the amount borrowed less the amount returned by the University, in accordance with the promissory note signed by the student.

Snapshot of Student Account:

- **Tuition**: $1,959.00
- **Direct Loan**: $3,000.00
- **Refund to Student**: $1,041.00
- **Account Balance**: $0 At time of resignation
- **Tuition Credit**: $1,494.72
- **University Refund to Direct Loan Program**: $1,494.72
- **Account Balance**: $0 After resignation

Resignation Scenario #2: An undergraduate student formally resigns in the Registrar's Office on September 17th and turns in her dorm room keys and key card the same day.

Typical Charges:

- **Financial Aid Disbursed**:
  - $5,000 Federal Subsidized Direct Loan
  - $2,000 FSEOG Award
  - $9,145 Tuition
  - $7,000 Total Title IV Financial Aid
  - $1,750 Dorm Room
  - $3,000 Institutional Scholarship
  - $1,480 Meal Plan
  - $2,000 Outside Scholarship
  - $12,375 Total Charges
  - $12,000 Total Financial Aid Disbursed

**Calculation**: Based on the same calculations used in Scenario #1 = 23.7%

Amount of charges earned by the institution = $12,375 x 23.7% = $2,932.87

Amount of charges to be credited to the student's account = $12,375 - 2,932.87 = $9,442.13

FINANCIAL INFORMATION / 45
Amount of Title IV funds earned by student = $7,000 x 23.7% = $1,659.00

Amount of Title IV funds to be returned to the Title IV programs = $7,000 - $1,659 = $5,341

Amount of Title IV funds to be returned by the University = the lesser of $5,341 or $12,375 x (100-23.7%) = $9,442.12

The University will refund $5,341, as follows:
- $5,000 to Federal Subsidized Direct Loan
- $341 to FSEOG Award

Amount of Title IV funds to be returned by the student = Since the University returned the full amount due to the Title IV programs, there are no funds to be returned to the Title IV programs by the student.

Calculation of remaining credit for University charges and distribution towards non-Title IV funds:
- Total charges credited = $9,442.12
- Less Title IV funds returned by the University = $5,341.00
- Funds to be returned to non-Title IV funds = $4,101.12

These funds are distributed as follows:
- $3,000 to an institutional scholarship
- $1,101.12 to an outside scholarship

Snapshot of Student Account:
- Charges: $12,375.00
- Direct Loan: (5,000.00)
- FSEOG Award: (2,000.00)
- Institutional Scholarship: (3,000.00)
- Outside Scholarship: (2,000.00)
- Student Payment: (375.00)
- Account Balance: -0- At time of resignation
- Charges Credited: (9,442.12)
- University Refund to Direct Loan: 5,000.00
- University Refund to FSEOG: 341.00
- Funds Returned to Institutional Scholarship: 3,000.00
- Funds Returned to Outside Scholarship: 1,101.12
- Account Balance: -0- After resignation

Please be aware that neither pre-enrollment nor dormitory housing deposits will be refunded should the student not enroll in the semester for which the deposit was intended.

**Leave of Absence**

**Approved Leave of Absence**

A student who is on an approved leave of absence retains in-institution status for Title IV loan repayment purposes. However, if the student does not return from a leave of absence, the student's loan grace period starts at the date the leave began.

Generally, only one leave of absence may be granted within a 12-month period. The
University may grant one additional leave of up to 30 days for a reason not defined in the regulations, if it determines that the leave is necessary due to unforeseen circumstances. Jury duty, military service, and conditions covered by the Family and Medical Leave Act are acceptable reasons for granting an additional leave.

Unapproved Leave of Absence
An unapproved leave of absence is a leave granted by the University for academic reasons that do not meet the conditions of the Title IV regulations for an approved leave of absence. However, this unapproved leave of absence must be treated as a withdrawal for Title IV purposes.

For a student who takes a leave of absence that does not meet the requirements for approval, the withdrawal date is the date that the student begins the leave of absence.

Overpayment
All payments made by or on behalf of a student shall be receipted to his/her account. In the event of an overpayment, it is not necessary for the student to request a refund. Refundable credit balances are processed on a regular basis by the Office of the Bursar.

Credit balances resulting from overpayment by credit card payment will be refunded to the credit card.

General Information
Books: Books and other supplies are available at the Mercer Bookstore. The cost of books varies with the courses of study and course load and may range from $300 to $750 per year.

Parking Fee: No fees are charged for University parking. However, parking decals are required and may be obtained from the University Police. Unauthorized or illegal parking violations are subject to fines set by Mercer Police, and vehicle impoundment. Failure to pay parking fines and penalties will result in the student being denied transcripts and clearance to register for further classes. Students disputing parking fines should contact the Mercer Police.

Miscellaneous Fees: Fees or fines may be imposed for dorm or property damage, library fines, honor code violations, and campus safety violations.

Fire, theft, and damage to personal property: The University assumes no responsibility for damages or loss of personal property due to fire, theft, or other causes.

Student Identification: All Mercer students are required to have a valid student identification card. A validated I.D. is required for check cashing, dining hall, and library privileges.

Financial Assistance
Mercer University’s financial aid programs are administered in conjunction with a federally-established policy and philosophy of financial aid for education. The basis of this policy is the belief that parents have the primary responsibility for helping students meet educational costs, and that financial assistance is available to help students meet the difference between potential resources (such as a parent's contribution, summer earnings, outside scholarships and awards, etc.) and expenses. Parents and students should carefully review the “Financial Information” section of the catalog in order to be familiar with the actual costs
of the University. In addition, other personal expenses such as transportation, books, and supplies, should be anticipated.

The purpose of Mercer's financial aid program is to provide assistance to students who, without such aid, would be unable to attend college. Financial assistance may include scholarships, grants, loans, and part-time employment. These types of assistance are extended either singly or in combination. The type of combination or "package" offered depends upon a student's academic record and need for assistance. It is understandable that most students and their families would prefer assistance through a full scholarship or gift program rather than a "package" of assistance, but the package method enables the University to assist more students, thereby increasing the possibility of each applicant receiving funds.

In order for a student to be considered for every type of assistance available (i.e., federal, state, and University sources), a Free Application for Federal Student Aid (FAFSA) must be completed each year. Students may complete the FAFSA on the Web at www.fafsa.ed.gov. Georgia residents should also complete the GA Tuition Equalization Grant Application and the HOPE Scholarship application the first year they are eligible for these funds.

Mercer's priority deadline for receipt of all required forms is April 1 each year. Forms received after that date will be given consideration as long as funds remain available. Because the FAFSA generally requires four to six weeks processing time, we recommend that this form be submitted to the Federal Processor no later than February 15 each year, in order for Mercer to receive the results by our priority deadline of April 1.

Students are encouraged to visit the Office of Student Financial Planning (OSFP) website (www.merceraid.com) to learn more about financial aid policies and to e-mail their Financial Planning Counselors with any questions related to financial aid.

Student Financial Aid Policies

- An applicant for financial assistance must be a U.S. citizen or eligible non-citizen.
- An applicant for financial assistance must be admitted as an eligible degree-seeking student to the University before financial assistance can be awarded. Provisionally accepted students are not eligible for financial aid.
- In most instances, financial assistance is granted only to students who enroll in a course load of at least twelve semester hours per term, although assistance from certain federal and state programs may be available to those attending less than full-time.
- Financial assistance is generally awarded for the two semesters (i.e., Fall and Spring) of the regular academic year. Students interested in the summer session(s) will be reviewed for any remaining loan eligibility once they have enrolled for summer classes. Students should discuss summer enrollment plans with their Financial Planning Counselor at least two weeks before summer term begins. Mercer scholarship and grant funds are not available for summer.
- Students receiving awards from sources other than Mercer University are required to advise the OSFP. A written statement that identifies the sponsor(s), the term(s) applicable, and the amount of the outside award(s) is required. Some adjustment of the financial aid originally awarded may be necessary. The University reduces any self-help (i.e. loan and work) awarded to the student first.
- One-half of qualified students’ final annual financial aid packages will be automatically credited to their accounts at the beginning of each semester, provided all necessary paperwork is completed (with the exception of student work awards). Work awards are paid directly to the student by check after the student earns these funds.
It is up to the student to apply these checks to their balance due, if any, in the Bursar's Office.

- No financial assistance will be disbursed while a student is in the “verification” process. Verification is the process by which the Federal Government requires schools to verify the accuracy of information reported by students and families on the FAFSA. Some students' forms will be randomly selected (by the federal processor) for verification, while other forms will be selected by the OSFP. If your forms are selected for verification, you will be notified by the OSFP and required to furnish supporting documentation.

- With the exception of various University funds, such as academic, athletic, ROTC, and music scholarships, assistance is generally granted only in cases of financial need. The fact that a student receives an award one year in no way automatically renews the award for subsequent years. However, every effort is made to see that awards are renewed according to established University criteria. Applicants are reminded to submit a FAFSA annually by **February 15** in order to be considered for all types of assistance.

- Recipients of financial assistance who become the subject of disciplinary probation may forfeit financial aid during any period of probation.

- This institution is in compliance with Title VI of the Civil Rights Act of 1964 and Title IX of the Education Amendments of 1972 and does not discriminate on the basis of race, color, religion, sex, or national origin.

- Academic scholarships and other University awards are made only to students who attend full-time (minimum 12 semester hours per term). Following the initial semester award, University awards are renewable for seven additional semesters (fall and spring only), as long as the student continues to meet eligibility criteria.

- Financial assistance may be available for Mercer's study abroad programs. Students planning to study abroad must notify their Financial Planning Counselor at least 30 days in advance of their travel date.

- Certain veteran's benefits must be considered part of the student's financial aid package. It is the student's responsibility to advise the OSFP if any VA benefits are being (or will be) received.

- To be considered for financial aid, the student must not owe a refund on federal or state funds.

- Students must be making progress towards the completion of their courses of study according to the “Satisfactory Academic Progress Standards” below.

- Students who fail to earn a passing grade in all of their classes for a semester may be considered, for federal and state financial aid purposes, to have unofficially withdrawn from the University. If the institution cannot document that the student completed at least one class for the semester, federal and state financial aid will be returned to the original sources of funds in accordance with the Federal Title IV Refund Policy.

**Satisfactory Academic Progress Standards**

The OSFP is required by federal and state regulations to review the academic performance of every student at the end of each academic year. Failure to maintain satisfactory academic progress affects a student's eligibility to receive federal and state financial aid. Mercer's institutional financial aid awards are renewed based on separate grade point average requirements.
“Satisfactory academic progress” for federal and state funds at Mercer University is defined as follows:

1. A student must receive a passing grade in at least 67% of all courses attempted at Mercer. A course is considered “attempted” if the student is enrolled in the course at the end of the “drop-add” period.

2. A student must have the minimum cumulative grade point average required for continued enrollment in the school/college in which the student is enrolled.

3. Undergraduate students must complete their educational programs within 150% of the published lengths of the programs.

A student who fails to meet requirements 1 and 2 above is given one probationary semester of federal and state financial aid eligibility at Mercer. To successfully complete the probationary semester, the student must attempt a full load of course work (at least 12 hours) AND receive a grade of C or better in at least 12 hours of coursework. Successful completion of the probationary semester will result in one additional probationary semester of federal and state financial aid eligibility. A student must successfully complete each probationary semester thereafter, as described above, until cumulative academic performance at Mercer meets the satisfactory academic progress standards stated above.

Failure to successfully complete any probationary semester will result in the loss of federal and state financial aid eligibility until a student's cumulative performance at Mercer meets the satisfactory progress standards explained above. Students may appeal decisions made regarding satisfactory academic progress by writing to the Financial Planning Review Committee, c/o the OSFP. This committee is comprised of University representatives who review all such appeals and notify students in writing of their decisions. Decisions made by this committee are final and may not be appealed further, according to federal law.

University Academic Scholarships and Grants

University academic scholarships and grants are awarded annually through the Office of Admissions to qualified entering full-time freshmen and transfer students. These funds are awarded for eight semesters maximum (fall and spring semesters only), provided a student is enrolled full-time and has not completed undergraduate degree requirements. These scholarships are originally awarded based upon academic merit (i.e., high school GPA and SAT/ACT score). Students must meet established academic criteria for renewal of their academic scholarships and grants each year. Please contact the Office of Admissions for further information.

Students seeking merit-based scholarships or their continuation may be required to complete a Free Application for Federal Student Aid (FAFSA) and/or GSFAPPS, Georgia’s online application for HOPE and the GA Tuition Equalization Grant.

1. To maintain academic scholarships, students must earn a minimum of 12 credit hours in each semester – Fall and Spring.

2. The minimum standard for the continuation of merit-based scholarships is a cumulative grade point average of 2.5 for undergraduate students. Grade point averages will not be rounded up. Specific scholarships and/or academic programs may require a higher grade point average.

Cumulative grade point averages and semester loads will be checked at the end of each spring term. A student who fails to meet requirements 1 and 2 is given a provisional period of one year. If the student fails to meet the requirements at the end of the provisional period, but has maintained an academic load of at least 12 semester hours each term and has
a grade point average of at least 2.0, then the student will retain 90% of the original scholarship amount. Scholarships will be suspended for any student who fails to earn a cumulative grade point average of at least 2.0 at the end of the fourth semester. By contacting the Office of Financial Planning, students may have their scholarships reinstated at the original value at the end of any term in which the student meets the aforementioned criteria.

Endowed Scholarships

Certain scholarships are also provided by University sources, private businesses, civic groups, estates, individuals, and alumni. Most of these scholarships are awarded to students who demonstrate strong academic achievement and proven need for assistance. All scholarships are highly competitive and, despite the generosity of University friends and alumni, there are not enough funds to provide scholarship aid to all qualified students.

When applying for endowed scholarship assistance, it is not necessary to indicate each individual scholarship for which you wish to be considered. Applicants will be considered for each scholarship for which they are eligible, as long as funds remain available. Scholarships coordinated through the OSFP are listed below. In addition, there are several scholarships coordinated through various departments on campus. Please contact the OSFP for additional information, if needed.

- Nedra Anargyros Scholarship
- Charles Andrews Scholarship
- Awtrey Scholarship
- Pearl Baker Scholarship
- Esther Baldwin Scholarship
- Barlow Scholarship
- Joe Frank and Ada Barton Scholarship
- Thomas W. Bennett Scholarship
- Berry Scholarship
- Sara Cheatham Bittick Scholarship
- Blivins Scholarship
- Doris Bleckley Scholarship
- Iverson Brooks Fund
- Edna Boone Memorial Scholarship
- Zonie Brantley Scholarship
- Bryan Scholarship
- M.E. Butler Scholarship
- Paul E. Cable Scholarship
- A & M Cardwell Scholarship
- Dr. B. Carroll Carter Scholarship
- M.D. Memorial Scholarship
- Richard and Annette Chappell Scholarship
- Clark Scholarship
- Class of '31 Scholarship
- Irma and Marvin Coddon Scholarship
- Collier Scholarship
- Martha Jean Colquitt Memorial Scholarship
- Charles Connally Scholarship
- Bryan Cook Honorary Scholarship
- Joel J. Cordell Scholarship
- Cousins Scholarship
- James M. Cowan Scholarship
- James and Sandra Cox Scholarship
- Mary & Carl Cranford Scholarship
- Crouse Scholarship
- Barbara Dean Scholarship
- Dodd Scholarship
- Donaldson Scholarship
- R.E. Dorough Scholarship
- Dowell Scholarship
- Elmo Droughon Scholarship
- Dunaway Scholarship
- Dunwoody Scholarship
- Eagle Scout Scholarship
- Elyeen R. Elrod Scholarship
- Engineering Faculty & Staff Scholarship
- Paul Erbele Scholarship
- Bessie A. Fisher Scholarship
- C.S. Futral Scholarship
- Futral Shakespeare Scholarship
- Galt Scholarship
- Robert Mann Gamble Scholarship
- C.B. Gambrell Scholarship
- Jimmy and Annie Faye Gardner Scholarship
- Gay Scholarship
- James Gilbert Scholarship
- Mary Cleveland Glenn Scholarship
• Glover/Abney Scholarship
• Joan Godsey Scholarship
• Goizueta Foundation Scholarship
• Moses Gordon Scholarship
• G.W. and Mary Goss Scholarship
• Gragg Scholarship
• James Gray Scholarship
• Allen and Jane Grum Scholarship
• Hoke S. Greene Scholarship
• Gunn-Murray Memorial Scholarship
• Robert L. Gunnels Scholarship
• Betty Hamil Scholarship
• Hubert Hamilton Scholarship
• D.S. Hardman Memorial Scholarship
• William B. Hardman Fund
• Henry E. Harris Fund
• Rufus Harris Scholarship
• John & Ruth Harrison Scholarship
• Julian & India Harrison Scholarship
• J. Freeman Hart Scholarship
• Heard Scholarship
• Jean Hendricks Psychology Scholarship
• Hendricks Minority Scholarship
• Bobbie Bobo Hennecy Scholarship
• Holcomb Scholarship
• Louise Holland Scholarship
• Ira Holliman Scholarship
• Ira P. and Lucile F. Holliman Scholarship
• Holsenbeck Memorial Scholarship
• Fred W. Hoppe Music Scholarship
• Horn Scholarship
• Leslie M. and Ethel A. Horn Scholarship
• Ellen M. Hudson Organ Scholarship
• Irvin Scholarship
• E.S. Jackson Scholarship
• Emily Jackson Scholarship
• Frank James Scholarship
• Hal Johnson Scholarship
• Hal and Geneva Johnson Scholarship
• H. H. Johnson Scholarship
• Mary & William Johnson Scholarship
• Johns Creek Baptist Church
• Allie Jolley Scholarship
• Allie & Joseph Jolley Scholarship
• Ben Hill Jones Scholarship
• T.W. Jones Scholarship
• A. Justus Scholarship
• Laverne and Margie Kellum Scholarship
• Evolyn Kennedy Scholarship
• Knight Scholarship
• Latore Family Scholarship
• T.J. & Mary Lawler Scholarship
• Hugh Lawson III Memorial Scholarship
• Lawton Scholarship
• W. G. Lee Music Scholarship
• George William Lee Scholarship
• David Leonard Memorial Scholarship
• Mappin Memorial Scholarship
• B. Mathias Martin Scholarship
• Martin-Melton Scholarship
• Maughon Fund
• The Jeffrey Mavro TCO Scholarship
• Shannan Mays Scholarship
• McAfee Vision and Leadership Scholarship
• McCarty Chemistry Scholarship
• Clyde McCrea Scholarship
• Mildred McMahon Scholarship
• G & G Meeks Scholarship
• Robert McDuffie Scholarship
• Mens EEE Scholarship
• Fred Miles Scholarship
• James & Pauline Miles Scholarship
• W.L. Moore Scholarship
• James Morton Scholarship
• Hammond Nicholson Scholarship
• Pace Family Scholarship
• Parents Scholarship
• Patillo Scholarship
• Drew W. Paulk Scholarship
• Perryman Scholarship
• W.L. Pickard Memorial Scholarship
• Lamar R. Plunkett Honorary
• SC Sigma Nu Records
• Thomas Plunkett Scholarship
• Myrtle Raines Scholarship
• Warner and Pearl Traylor Raines Scholarship
• Deforest Ratliff Scholarship
• Arthur & Helen Rich Scholarship
• Roberts Scholarship
• Roddenberry Fund
• Jennifer L. Ross Memorial Scholarship
• Jennifer Sams Memorial Scholarship
• Billington Sanders Scholarship
• Harold Sangster Scholarship
• Saunders Scholarship
• Harry Schwartz Scholarship
• Rebecca Scott Scholarship
• Sellers Scholarship
• Sewell Scholarship
• C & E Sheridan Scholarship
• Siegent Scholarship
• Olyn S. & Brunella S. Sims Scholarship
• William P. Simmons Scholarship
• Janice Singleton Scholarship
• Bryan Lambert and "Crook" Smith Scholarship
• E. and R. Smith Scholarship
• Claude Smith Baseball Scholarship
• John Y. Smith Scholarship
• Smith-Clark Scholarship
• Stansfield Art Scholarship
• Robert & Doris Steed Scholarship
• Stetson Scholarship
• W.F. & Estelle Stone Scholarship
• Thelma Stripling and Lee Worsham Scholarship
• Stripling/Ruff Scholarship
• Sylvester Baptist Church Scholarship
• Edward and Fannie Taylor Scholarship
• Jackson Williams Tarver Scholarship
• Charles B. Thompson Scholarship
• Tift Alumnae Association Scholarship
• Tift Bowen Scholarship
• Tift Mae Burrell Scholarship
• Tift Jayne Cheatham
• Tift Chiles Scholarship
• Tift Collins Scholarship
• Tift C.B. Day Scholarship
• Tift Eunice Day Scholarship
• Tift Dowdy Scholarship
• Tift Ellington Scholarship
• Tift Gardner-Madden Scholarship
• Tift General Scholarship
• Tift Holladay Scholarship
• Tift D. Jordan Scholarship
• Tift L. J. Lanier Scholarship
• Tift Lawton Cater Scholarship
• Tift Malone Scholarship
• Tift Maynard Scholarship
• Tift McGraw Scholarship
• Tift McManus Scholarship
• Tift Opdyke Scholarship
• Tift Reid-Hollingsworth Scholarship
• Tift Scarborough Scholarship
• Tift Elizabeth Stacey Scholarship
• Tift E.W. Stone Scholarship
• Tift Vinzant Unrestricted Scholarship
• Tift Wardlow Scholarship
• Tift H & J Williams Scholarship
• Tift R.L. and Z.K. Williams Scholarship
• Tift Unrestricted General Endowed Funds
• Tift Unrestricted General Scholarship
• Vanderhoef Scholarship
• Van Greene Scholarship
• Mary Lou Vaughn Scholarship
• Louise Verdery Scholarship
• J.J. Walker Scholarship
• Flora Walraven Scholarship
• Neil Ward Scholarship
• Graydon Ware Scholarship
• Katherine C. Ware Scholarship
• W.T. Wasden Scholarship
• Thomas E. Watson Fund
• Doyle E. Watson Baseball Scholarship
• James and Mary Wesberry Scholarship
• Westend Baptist Scholarship
• James Whaley Scholarship
• Lettie Pate Whitehead Scholarship
• Frances Whitworth Scholarship
• Mary Wilder Scholarship
• A. L. and Peggy Williams Scholarship
• H. Williams Scholarship
• J. D. Williams Scholarship
• Sarah Brown Withers Scholarship
• Woodall and Cook Memorial Scholarship
• Frances Woolfolk Scholarship
• Jimmie Wren Scholarship
• YKK Scholarship
• Yoshida Scholarship
• YMCA Scholarship
• Zuber Scholarship
Ministerial Assistance Funds

MINISTERIAL FUNDS - Mercer offers scholarship assistance to qualifying students planning a career in full-time Christian service. These funds, which have been provided through the very generous gifts of friends and alumni of the University, are listed below. Application for these funds is the same as for all other funds administered directly through the University (i.e., the FAFSA is required). In addition, an annual letter from the student's pastor, stating that the pastor is aware of the student's future career plans, and an annual letter of intent from the student are both required. All students receiving ministerial aid funds are required to successfully complete at least one course in Christianity annually; and they must meet annually with the University Minister.

BAPTIST HERITAGE GRANTS - These grants are funded through the University and are awarded to qualified students through the Office of University Admissions. For additional information, please contact the Office of University Admissions. Students must provide proof of church membership and must enroll full-time at Mercer University's Main Campus to receive this award.

Ministerial Scholarships

- Adams Scholarship
- P.H. Anderson Scholarship
- Tift I.W. Bowen Scholarship
- Bertha M. Crawford Scholarship
- Guy L. Cummings Scholarship
- Edwards Scholarship
- First Baptist Church of Columbus
- M.E. Fountain Scholarship
- Giddens Ministerial Scholarship
- General Ministerial Funds
- General M.A. Scholarship
- Hardman Scholarship
- John B. Hardman
- Holcomb Scholarship
- Hughes Scholarship
- Jackson Scholarship
- Jessup Scholarship
- L.B. and C.H. Knight Scholarship
- Light Memorial Scholarship
- B.K. MacDougall Scholarship
- John & Neva Mowell Scholarship
- L.D. Newton Scholarship
- Posey Scholarship
- Pruitt Scholarship
- Seigler Scholarship
- Skelton Scholarship
- Cutts Smith Scholarship
- Stubbs Scholarship
- Thomas Scholarship
- Van Deventer Scholarship
- Vineyard Memorial Scholarship

ROTC Scholarships

MERCER ROTC ROOM AND BOARD SCHOLARSHIPS - These awards are made to Army tuition scholarship recipients who have been fully accepted into the Army ROTC Program. Please see our web page for a full explanation of the ROTC Room and Board Scholarships or contact the ROTC Department at Mercer University.

Federal and State Grants

The FEDERAL PELL GRANT PROGRAM is available to qualified undergraduate students. The amount of a Pell Grant is determined on the basis of a student's financial resources and the resources of his or her family, as reported on the FAFSA, along with the cost of education at the institution the student attends.

The FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT PROGRAM (SEOG) is available to a limited number of undergraduate students, both dependent and independent, who have exceptional financial need. These grants are awarded annual-
ly, based on each student's need as determined from information provided on the FAFSA. Awards for 2008-2009 may be as high as $4,000 per year. For the 2008-2009 academic year, SEOG funds will be awarded first to students who have the lowest EFC’s and also receive maximum Federal Pell Grants; other Pell Grant recipients will be considered in EFC order next. Mercer awards five percent of its annual SEOG allocation to independent students. Please note that SEOG funds may be used during the academic year to fund university grants and scholarships for eligible students.

ACADEMIC COMPETITIVENESS GRANT (ACG) - An eligible student may receive an ACG of up to $750 for the first academic year of study and up to $1,300 for the second academic year of study. The academic year for an ACG is based on the student earning 24 hours each year. Students who have earned greater than 48 hours are not eligible to receive the ACG. Please see our website for full eligibility requirements.

NATIONAL SCIENCE AND MATHEMATICS ACCESS TO RETAIN TALENT GRANT (SMART GRANT) - The SMART Grant is available during the third and fourth years of undergraduate study to full-time students who are eligible for the Federal Pell Grant and who are majoring in physical, life, or computer sciences, mathematics, technology, or engineering or in a foreign language determined critical to national security. The student must also be enrolled in courses necessary to complete the degree program and to fulfill the requirements of the intended eligible major, in addition to maintaining a cumulative grade point average (GPA) of at least 3.0 in coursework reequired for the major. SMART Grant academic years are based on 24 hours. The junior year is 48-72 hours and the senior year is 72-96 hours. A senior may receive his senior disbursement over 96 hours if he has not exceeded the program length. Please see our website for additional information.

GEORGIA TUITION EQUALIZATION GRANT PROGRAM - The State of Georgia has made available, to qualified Georgia residents, an annual tuition grant for attendance at approved private colleges in the state. To be eligible for this grant, the student (and parents of dependent students) must be a United States citizen who has resided in the State of Georgia for at least one full year prior to the first day of classes for any particular semester. The student's academic load must meet the requirements specified by the GA Student Finance Authority (presently 12 credit hours per semester). To be considered for the grant, new students must complete an application (available at www.gacollege411.org) and meet all eligibility requirements. The total amount of the grant is determined each year by the state legislature, based on availability of funds.

HOPE SCHOLARSHIP - High school graduates, from 1996 and later, who are named HOPE Scholars will receive a HOPE Scholarship of $3,500 for the 2008-2009 school year, as long as they meet state eligibility criteria and continue to have a cumulative B grade point average. First-time HOPE recipients must complete a HOPE Scholarship application at www.gacollege411.org. Please note that the HOPE GPA of 3.0 or higher does not include "plus"grades (e.g., B+, C+). These grades will be treated as whole grades (B, C, etc.). Also, home-schooled students may only receive HOPE funds retroactively for their freshman year, provided they attain a cumulative 3.0 HOPE grade point average after 30 attempted hours.

The SCHOLARSHIP FOR ENGINEERING EDUCATION (SEE) is awarded to qualified Georgia residents who meet state eligibility requirements, have a 2.5 cumulative GPA (using the same calculation policies above as those for HOPE renewal), and are pursuing an undergraduate degree in any of the following programs accredited by the Engineering Accreditation Commission of the Accrediting Board for Engineering and Technology: Biomedical Engineering, Computer Engineering, Electrical Engineering, Environmental Engineering, Industrial Engineering, and Mechanical Engineering. This award consists of $1,750 per semester of full-time undergraduate study, for an educational career maximum
of $17,500. This award is considered a scholarship, provided the School of Engineering graduate works one year in a field of engineering within the State of Georgia for each $3,000 awarded. Otherwise, this award converts to a cash-repayable loan. A separate application is required every year. Applications are available in the OSFP and at www.gacollege411.org. Renewal applications are available from the State Scholarship Program at 1-800-505-GFSC. Please note: Funding is limited and is based on availability from the state. Awards are made on a first-come, first-served basis.

The PROMISE TEACHER SCHOLARSHIP is awarded to high-achieving students who aspire to be teachers in Georgia public schools. To be considered for the scholarship, a student must meet the state's eligibility requirements, have a 3.0 cumulative GPA (see HOPE GPA calculation above), be academically classified as a junior, and be accepted for enrollment in an approved teacher education program in Georgia leading to initial certification. The maximum award for a full-time student is $3,000 for the junior year and $3,000 for the senior year. The award will be reduced if the student enrolls for less than 6 hours. The scholarship recipient is obligated to teach in a Georgia public school at the preschool, elementary, middle, or secondary level for one academic year for each $1,500 awarded. If the student is unable to complete his/her program of study or meet the teaching obligation, this award converts to a cash-repayable loan. A separate application is required every year. Applications are available in the OSFP and at www.gacollege411.org. Renewal applications are available from the Scholarship Program at 1-800-505-GSFC.

Loans

FEDERAL PERKINS LOANS - Long-term loans are available through the Federal Perkins Loan Program. Although many students borrow Perkins funds to enable them to continue or complete their education, funds are not sufficient to assist every applicant. Exceptional need for financial assistance and availability of funds determine an applicant's award.

Qualified students may receive a maximum of $4,000 per year and an aggregate maximum of $20,000 for all years as an undergraduate student. Graduate students may borrow a maximum of $6,000 per year and an aggregate maximum of $40,000 (including undergraduate loans). For loans granted after October 1, 1992, the repayment period does not start and interest does not begin to accrue until nine months after a student ends studies. The loan bears simple interest at the rate of 5% per year, and repayment of principal may generally be extended over a ten-year period. Borrowers who become full-time teachers in certain elementary schools or secondary schools, or in certain fields of study, may qualify for cancellation of Perkins Loans.

Borrowers who serve as full-time staff members in the Head Start Program may also qualify for loan cancellation for each complete year of service. Deferment is allowed for as long as a borrower is enrolled on at least a halftime basis at an institution of higher learning. Deferment is also allowed for service in the Peace Corps or Vista.

WILLIAM D. FORD FEDERAL DIRECT SUBSIDIZED LOANS - Applicants must demonstrate financial need to be eligible; thus, completion of a FAFSA is required. Laws which govern the student loan program permit students to borrow the following amounts: $3,500 per academic year for freshmen; $4,500 for sophomores; $5,500 for juniors and seniors; and up to $8,500 per academic year for graduate and professional students. The aggregate limits that a student may borrow are $23,000 for undergraduate study and $65,500 for graduate study (including loans for undergraduate study).

The federal government pays the interest accruing on this loan while the student is in school and during the first six months following withdrawal or graduation from school. After this period, the student begins repayment on the loan. The interest rate for loans to new bor-
rowers without an outstanding Federal Family Education Loan or Federal Direct Loan is a fixed rate of 6.8%.

All first-time borrowers at Mercer are required to complete entrance counseling before funds can be disbursed. Students are encouraged to complete this required process electronically (www.dlssonline.com) to expedite receipt of loan funds.

WILLIAM D. FORD FEDERAL DIRECT UNSUBSIDIZED LOANS - Unsubsidized loans are available to students who do not qualify for the above Federal Direct Subsidized Loans. These loans have terms and conditions similar to the subsidized loans above; however, the borrower is responsible for interest that accrues while he or she is in school. Students may pay the interest as it accumulates each semester or have it capitalized when the loan goes into repayment.

Recent amendments signed into law are effective for loans first disbursed on or after July 1, 2008. For students enrolled as regular students in eligible programs, the changes include additional unsubsidized Direct Loan annual limit of $2,000 for undergraduate dependent students. See our website for additional details.

Independent undergraduate students and graduate or professional students are able to borrow additional amounts above the normal yearly limits for a subsidized or unsubsidized loan. Undergraduate freshmen and sophomores may be eligible to borrow an additional $4,000; undergraduate juniors and seniors may be eligible to borrow an additional $5,000; and graduate or professional students may be eligible to borrow an additional $12,000 per academic year. The aggregate limits that a student may borrow are $23,000 for dependent undergraduate students, $46,000 for independent undergraduate students, and $138,500 for graduate and professional students (including loans for undergraduate study).

Although unsubsidized loans are not awarded on the basis of need, students are required to complete a FAFSA. Further information regarding these loans is available from the OSFP.

WILLIAM D. FORD FEDERAL DIRECT PLUS LOANS - These loans are available to credit-worthy parents of dependent undergraduate students. To apply, a separate application must be completed every year by a parent or legal guardian. The annual limit a parent may borrow is equal to the cost of attendance minus any other financial aid the student is receiving. The interest rate is fixed at 7.9%. Interest begins to accumulate at the time the first disbursement is made, and repayment begins within 60 days after the final loan disbursement each year.

If the loan is denied due to an adverse credit history, the parent will be notified by the Direct Loan Servicing Center. The parent may pursue the PLUS Loan further by securing a credit-worthy endorser (co-signer). The student is not eligible to endorse a PLUS Loan. If the parent does not wish to pursue the PLUS Loan further, the student may be eligible to receive a Federal Direct Unsubsidized Loan. Further information is available from the OSFP.

OTHER UNIVERSITY LOAN FUNDS - There are several very limited loan funds administered through the University. These funds are awarded on a restricted basis. Application for these funds is the same as for all other funds administered directly through the University. A listing of these loan funds is provided below:

- Agnes M. and Oscar Lee Bridges Fund
- Chaffin-Dickey Memorial Student Loan Fund
- Aquilla J. Cheney Fund
- Coachman Brothers Trust Fund
- George Boyce Connell Memorial Fund
- John Cleveland Dukes Fund
- Mr. and Mrs. Edgar O. Hawkins Student Loan Fund
- McWhorter Fund
- Oliver S. Porter Loan Fund

FINANCIAL INFORMATION / 57
PRIVATE ALTERNATIVE STUDENT LOANS - There are a number of outside private alternative loans available to students who need assistance beyond University and federal loan resources. Please contact the OSFP for further information regarding private alternative student loans. Also, please visit our web site at www.merceraid.com for further information.

Student Employment

Federal Work-Study Program

The Federal Work-Study Program is a program designed to provide qualified students the opportunity to pay part of their educational expenses by working a part-time job on campus or in a community service job off-campus. In order to be employed under this program, the student must: (1) be enrolled; (2) have all required forms at the OSFP; (3) show evidence of financial need through the FAFSA; and (4) maintain satisfactory academic progress while employed under this program.

All student employment positions are coordinated through the Work-Study Coordinator located in the Office of Student Financial Planning. First-time Federal Work-Study recipients will be contacted during the summer preceding fall semester regarding their employment options.

Other On-Campus Part-Time Employment

All on-campus employment must be authorized by the Federal Work-Study Coordinator before the student begins working. Students who are awarded Federal Work-Study are given first priority for on-campus employment. Students must complete an I-9 Form and Tax Withholding Forms within three days of employment. All student-worker employment forms must be submitted to the Work-Study Coordinator. Students whose files are selected for verification must complete the verification process before they can begin working on campus.

Mercer Engineering Research Center (MERC)

Engineering and other technically oriented students are encouraged to seek part-time employment at the Mercer Engineering Research Center (MERC). MERC is the research and development arm of the School of Engineering and conducts fundamental and applied research and development in the physical, life, and mathematical sciences. The facility is located approximately 17 miles south of the Macon campus in Warner Robins, Georgia. Because of the classified nature of many of the projects supported by the U.S. government, U.S. citizenship may be required for employment. Applications for employment can be obtained directly from MERC.
Academic Information

The undergraduate curriculum is composed of two parts. The General Education Program is broad in scope, requiring study in several areas. It affords an introduction to some of the major areas of human knowledge and endeavor, and lays the foundation for continued study and for the student's contribution to society. The Upper Division Curriculum calls for more specialized study in a major, a concentration, or a specialization.

General Education

Mercer University's founding vision, articulated by Jesse Mercer in the 1830s, dedicates us to promote free inquiry, religious liberty, and inclusiveness-values consonant with Baptist heritage. University President William D. Underwood underscored that vision in 2006, noting that "...the extent to which a university transforms the lives of individual students, who in turn transform their communities, represents the ultimate measure of a university's greatness." To put this transformative vision into practice within the communities we serve, a Mercer University education emphasizes experiences that infuse intellectual growth, cultural understanding, civic responsibility, and moral discernment with practical competencies.

The distinctiveness of their programs and traditions notwithstanding, Mercer University's undergraduate colleges and schools share learning outcomes that reflect Mercer's mission to educate the whole person. These undergird the General Education Curricula, which provide the necessary foundation for disciplined study and lifelong learning.

General Education is designed to help students cultivate and refine habits of mind that prepare them to contribute constructively and meaningfully to society. To realize this goal, General Education strives to instill in persons broader perspectives while empowering them to find fuller and richer citizenship in a world in which different cultures, social institutions, and technologies intersect in multiple and diverse ways.

Four Outcomes of General Education

A Mercer education emphasizes experiences that foster intellectual growth, cultural understanding, civic responsibility, and moral discernment. These four interrelated capacities inform the intended outcomes for general education.

Intellectual growth may be interpreted to include complexity of thought, integrative and synthesizing ability, quantitative analysis, qualitative analysis, critical inquiry, critical reflection, creative expression, integration of life and learning experiences, self understanding and knowledge, and capacity for continued learning and intellectual growth.

Cultural awareness may be interpreted to include global perspective, intercultural perspective, empathy, perspective taking, engaging the other, and cultural appreciation.

Civic responsibility may be interpreted to include active responsible citizenship, the ability to engage with problems and issues, civility and respect, collaboration and working in teams, and caring.

Moral discernment may be interpreted to include judgment in ambiguous situations, academic integrity, ethical reasoning, ethical behavior, and the ability to act upon reflectively-held convictions.

These broad learning outcomes are achieved, not in the abstract, but in and through the exercise and development of certain specific practical competencies that are infused in these four outcomes of general education.
• Communicating effectively in writing in a variety of modes and settings
• Communicating effectively orally in a variety of modes and settings
• Analyzing observed natural phenomena through the use of scientific reasoning
• Reasoning quantitatively
• Integrating coherently diverse perspectives with knowledge
• Acting perceptively and responsibly in light of the education one has received

As required by the University's accrediting body, general education programs at Mercer will constitute a minimum of 30 semester hours to include credit hours in humanities/fine arts, social/behavioral science, and science/mathematics.

Degree Programs
The University offers the following degree programs:

**College of Liberal Arts**
Bachelor of Arts
Bachelor of Science
Bachelor of Science in Medicine or Bachelor of Science in Dentistry
Bachelor of Science in Health Science
Bachelor of Science in Medical Technology

**Stetson School of Business and Economics**
Bachelor of Business Administration
Master of Business Administration
Master of Accountancy
Executive Master of Business Administration (Atlanta only)
Professional Master of Business Administration (Henry County, Savannah)

**School of Engineering**
Bachelor of Science
Bachelor of Science in Engineering
Master of Science in Engineering
Master of Science

**Tift College of Education**
Bachelor of Science in Education
Master of Education
Master of Arts in Teaching
Specialist in Education
Doctor of Philosophy in Educational Leadership

**Townsend School of Music**
Bachelor of Music in Performance
Bachelor of Music Education
Bachelor of Arts in Music
Master of Music (Church Music)
Master of Music (Performance)
Master of Music (Conducting)
Master of Divinity with a concentration in Church Music (Joint degree with McAfee School of Theology)
For specific information on the degrees offered and their requirements, see the individual college/school listings.

**Student Classification**
Undergraduate student classification is based on the satisfactory completion of a minimum number of semester hours of credit, as follows:

- **Freshman**: 0-29 hours
- **Sophomore**: 30-59 hours
- **Junior**: 60-89 hours
- **Senior**: 90 hours and over

**Units of Credit**
The unit of credit is the semester hour. Generally, a credit represents one hour of class work per week for one semester, or its equivalent in other forms of instruction.

**Course Numbers**

**Undergraduate Level Courses:**

- **001-099**: Remedial (not applicable to degree requirements or graduation).
- **100-199**: Courses generally considered introductory in nature, including those carrying no prerequisites and those intended primarily for freshman-level students.
- **200-399**: Intermediate-level courses designed for students at the sophomore, junior, or senior levels. These are courses carrying prerequisites or requiring a level of sophistication not usually attained until after a student's first year of college.
- **400-499**: Advanced-level courses generally requiring senior status, including, but not limited to, such courses as seminars, senior independent or directed study, research, colloquia, etc.

Courses numbered below 300 are lower-division courses.
Courses numbered 300-499 are upper-division courses.

**Graduate Level Courses:**

**Stetson School of Business and Economics**
- **600-699**: Graduate courses designed for graduate students only

**School of Engineering**
- **600-699**: Advanced-level graduate offerings

**Tift College of Education**
- **500-599**: Post-baccalaureate initial certification only; non-degree credit
- **600-699**: Master of Education/Master of Arts in Teaching classes
- **700-799**: Education Specialist classes
- **800-899**: Doctor of Philosophy classes
Townsend School of Music

500-599: Graduate level offerings in applied and ensemble areas
600-699: Master of Music course offerings
700-799 Graduate level offerings co-listed with McAfee School of Theology

Grading System and Quality Points

Cumulative grade point averages are computed using a quality point system. The interpretation of the letter grades and their quality point values is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Interpretation</th>
<th>Quality Points</th>
<th>Per Credit Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent</td>
<td></td>
<td>4.0</td>
</tr>
<tr>
<td>B+</td>
<td>Good</td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>B</td>
<td>Good</td>
<td></td>
<td>3.0</td>
</tr>
<tr>
<td>C+</td>
<td>Average</td>
<td></td>
<td>2.5</td>
</tr>
<tr>
<td>C</td>
<td>Average</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>D</td>
<td>Poor</td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Failure</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>ABX</td>
<td>Absent from final examination (excused)</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>IC</td>
<td>Incomplete due to some requirement other than the final examination (excused)</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>IP</td>
<td>In Progress</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>AU</td>
<td>Audit</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>W</td>
<td>Withdrawal</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>Z</td>
<td>Grade Not Reported</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

* These grades are not calculated in the GPA.

Satisfactory/Unsatisfactory (S/U) Grade

Some courses are offered only on the basis of satisfactory/unsatisfactory grading; this grading option is stated in course descriptions. Students in the College of Liberal Arts, Tift College of Education, and the Stetson School of Business and Economics may elect the S/U option in certain courses. For policies on this option, see the catalog section about each of these schools/colleges.

Hours earned with a satisfactory grade will be added to the total required for graduation, but will not affect the cumulative grade point average; an unsatisfactory grade will result in no hours earned and in no penalty to the cumulative grade point average.

The satisfactory grade requires a standard of achievement equivalent to that which is usually awarded the grade of C or better. The purpose of this grade option is to give students the opportunity to expand their knowledge and to satisfy interests outside of their fields of chosen concentration without placing themselves in academic jeopardy.

Students who elect the S/U option must officially declare the decision no later than the end of the drop/add period, and they cannot change this decision after the drop/add period. Courses originally taken on a letter grade basis may not be repeated on an S/U basis.

ABX and Incomplete

The grade of ABX denotes that the student was absent from the scheduled final examination because of sickness or another valid and compelling reason that is satisfactory to
the instructor. A special examination, to take the place of the one missed, must be taken no later than mid-term of the next semester, or the ABX grade will be changed to the grade of F.

The grade of IC (incomplete) means the student is passing the class but some relatively small part of the semester's work remains incomplete because of illness or another valid and compelling reason that is satisfactory to the instructor. All course work in an undergraduate class must be completed no later than mid-term of the following semester, or the IC grade will be changed to a grade of F.

All ABX and IC grades must be replaced with traditional grades before degrees can be awarded.

In Progress (IP)

The IP (In Progress) grade is assigned only in courses that require completion of the assigned work beyond the end of the semester. An IP grade may not be given in place of a grade of “incomplete” (IC). To qualify for an IP grade, courses must be approved by the appropriate dean's office. All grades of IP will be converted to F (failure) if the work is not completed in one calendar year from the time the IP grade is assigned.

Grade Appeals

If a student disagrees with an assigned course grade, the student is required to initiate an appeal with the appropriate faculty member no later than 30 days from the completion of the term in which the course was offered. Appeals received after the 30-day period will not be honored.

Grade Reports

Mercer University does not automatically mail grade reports to students. Students may check their semester grades on-line through BearPort as soon as the grades are posted. After ALL grades are posted, official semester grade reports will be mailed only to those students who have requested them. Requests for official copies of grade reports must be made through BearPort during the last two weeks of a semester; a request must be made every semester that a student wants a report mailed to him/her (i.e., making a request one semester does not mean that you will automatically have a grade report mailed to you each of the following semesters). If a student does not order a grade report during the allotted two weeks at the end of a semester, the student will need to request a transcript in order to receive an official copy of his/her grades.

Academic Advising

Academic advising is integral to a student's educational experience at Mercer University. Academic advisors can assist students in various academic areas and acquaint students with a wide array of campus resources. Students meet with their advisors throughout the year to plan their academic programs and evaluate their progress. Advisors are critical in helping a student make certain that all educational requirements are met. Thus, a student is given the opportunity to meet with his or her advisor each semester prior to registration to review the student's choice of courses. Additionally, a student is encouraged to confer with the advisor when a change to his or her schedule becomes necessary (e.g., during the drop/ add period or when withdrawing from a course).

Most first-year students are advised by the instructor of their UNV 101, MAP 101, or FYS-X 101 course. Spending time in class with the student allows the advisor to better assess the student's interests and goals and to get to know the student better. Transfer students are assigned advisors during their first semester, based on their academic areas of
interest. Upon declaring or changing a major, a student will receive a new advisor in that academic area.

Academic advising is coordinated by the Office of Academic and Advising Services. Its staff members are readily available to provide academic assistance to students. Students experiencing academic difficulties or considering withdrawal from the University are encouraged to meet with a representative of this office. Most academic forms may also be obtained in this office, located on the first floor of Penfield Hall. Students may also contact the office at (478) 301-2078.

Registration

Registration is required for admission to any class. According to the University’s policies, students may not register if they have unpaid financial obligations, including library or Campus Housing fees, or if they have unresolved issues with their immunization records. Students are required to meet with their advisors prior to registration. In addition to the advisor’s approval/signature, students should obtain any other signatures/permissions required for special circumstances, such as a dean’s signature for overloads or the instructor’s signature for independent study or internships, etc. Students should consult the catalog and the current schedule of classes for any prerequisites and special requirements for specific courses, as well as instructions for registration procedures.

There are three registration periods each semester. Following the mid-term of each semester, a one- to two-week period of priority registration occurs for currently enrolled students. A registration time is assigned to each student based on the student’s total hours earned as of the end of the preceding semester; this is the earliest, but not the only, time at which the student may register. Shortly following the conclusion of priority registration, open registration begins, during which readmitted and new students may also register. Open registration ends when the new semester begins. When classes begin, late registration and the drop/add period continue for the first four (4) days of the term.

Students are responsible for their registration, and for the corresponding fees and charges incurred, and must notify the Office of the Registrar in writing, before classes begin, should they be unable to attend any or all classes for which they are registered. A continuous registration status is expected. Students who fail to register for subsequent terms (excluding summer), and who fail to notify the Registrar in writing of their intention not to return, forfeit their registration and housing deposits.

Please note that people who attend classes but are not officially registered cannot retroactively register or receive grades or credits for those courses.

Repeating Courses

A student may repeat a course in which he or she earned grades of D, F, or U in order to earn credit for the course or improve the grade. No course may be taken more than twice in the undergraduate program. A maximum of four courses may be repeated. Students who are repeating courses in an attempt to meet minimum graduation requirements for grade point averages in their major, minor, and/or school or college, or who have other extenuating circumstances, must have the appropriate dean’s permission to exceed the four-course limit.

Enrollment documents for such courses will carry the notation of “repeat” next to the course, and this notation will appear also on the class roll and the student’s permanent record. Credit hours will be granted only once for any given course. The grade recorded in the final attempt at taking the course will prevail. The final grade will be used in computing the student’s cumulative grade point average whether the grade is higher or lower than any previous grade(s) earned for this course. The previous grade(s) will not be deleted from the
permanent record. If the original course is no longer a part of the curriculum, an equivalent course may be substituted on the authority of the appropriate dean.

When a course is repeated, the student is subject to the catalog restriction on the total number of credit hours that may be taken in a single term. With a dean's approval, a student who has a C average or above may, in extraordinary circumstances, be allowed to take the “repeat” course as an overload. A course may be repeated on an audit basis if a student chooses to do so. A withdrawal grade or an audit in the repeat of a course does not serve to delete the computation of the previous grade(s).

Courses originally taken on a letter grade basis may not be repeated on a satisfactory/unsatisfactory basis.

Courses taken at another institution will not be accepted as Mercer “repeat” credit.

Academic Loads

An academic load of 12 semester hours qualifies a student for full-time status, which is necessary to fully qualify for scholarships and financial aid. First year students will be enrolled in no more than 16 credit hours during the first term. The number of credit hours for first year students during the first semester will range from 12 to 16. After the first term, 15 to 16 hours of credit each semester or 30 to 32 credit hours per year is typical and can allow students to complete specific degrees at the end of four academic years.

After the first semester in residence, students with a cumulative grade point average of B (3.0) or higher are permitted to take course overloads (i.e., the maximum load of 20 hours of credit per semester). The appropriate dean must approve course overloads, and the cumulative average of B must be maintained to retain the privilege of taking overloads in succeeding terms. A student whose cumulative grade point average is C (2.0) or higher may have the privilege to take a course overload during one term of the senior year to make up a deficiency in hours.

(For course load information for graduate students, see the Graduate Studies section.)

Schedule Changes, Course Withdrawal, and Term Withdrawal

Schedule Changes

Course changes (dropping and/or adding) may be made during the schedule change period as published in the schedule of classes. Students wishing to change courses must consult a professor in their major or an advisor regarding the contemplated change. The written permission of any professors concerned, the faculty advisor, and of the registrar may be required.

Course Withdrawal

A student may withdraw from a course up to the end of the ninth week of the semester, receiving the grade of W; the withdrawal must be formally declared in the Office of the Registrar by the announced deadline. A student who withdraws after the deadline will receive an F, except in extreme personal circumstances and with appropriate documentation. Please note that financial aid could be reduced upon withdrawal from a course. Contact the Financial Aid Office before you officially withdraw from a course.

Term Withdrawal

Term withdrawal from the University occurs when a student officially withdraws from all courses in which s/he is enrolled at any time after the end of the drop/add deadline for a given semester. The effective date of withdrawal is the date the withdrawal form is received by the
Office of the Registrar. Grades of W will be awarded for all of a student's courses when s/he officially withdraws before the end of the ninth week of the semester (the point at which the semester is two-thirds over). In order to receive grades of W, a student must complete the Term Withdrawal Form and submit it to the Office of the Registrar by the announced deadline. A student who withdraws after the deadline must complete the form for official withdrawal, but grades of F will be recorded for his/her classes. In extreme personal circumstances and with appropriate documentation, a student may appeal to the associate dean of his/her college to have grades of W awarded when officially withdrawing after the deadline.

- Non-attendance or ceasing to attend a course(s) does not constitute an official schedule change, course withdrawal, or term withdrawal. Failure to officially withdraw will result in academic and financial penalties.
- A student who withdraws from a course or from the University when a disciplinary action or honor code violation is pending is not necessarily exempt from a sanction and the final outcome may disqualify the student from receiving a refund.
- Information on Mercer's refund policies can be found in the "Financial Information" section of this catalog.

Final Examinations

Examinations are administered at scheduled times at the end of each semester. Students must report to examinations at the time scheduled. If a student has three final exams scheduled on the same day, the student should contact the associate dean of his/her college/school as soon as possible to request arrangements to take one of the exams on another day. Changes in the examination schedule may be authorized only by the appropriate associate dean. Permission for a make-up examination due to an illness or another emergency may be permitted at the discretion of the instructor.

Advance Placement and Credit-by-Examination

- Students who take Advanced Placement (AP) courses at the high school level and complete the examination administered by the Educational Testing Service are awarded credit based on the score and course equivalent(s) as determined by the appropriate Mercer academic department for each exam. No credit may be awarded for scores of 1 or 2. Applicants should request an official score report from The College Board be sent to the Office of the Registrar.
- Credit is also awarded for examinations administered by the College Level Examination Program (CLEP). Credit is awarded for scores at the 50th percentile or higher on the general and/or subject exams.
- CLEP credit will not be awarded if a student has already taken the equivalent college-level course.
- The International Baccalaureate Program is an internationally recognized curriculum that is taught at numerous high schools in the United States, Canada, and other countries. Mercer awards credit for scores of 5, 6, or 7 on the Higher Level examinations of the International Baccalaureate Program. Score reports should be included with the student's final high school transcripts or provided by the International Baccalaureate Office.
- In addition to CLEP, Advanced Placement, and International Baccalaureate exams, students may earn credit toward their degrees through the credit-by-examination procedures established in each of the colleges and schools of the University. These credits are awarded upon completion of institutionally developed and administered examinations. Each college/school determines the courses for which credit-by-exam may be given and establishes the criteria for awarding credit. No college, school, or department is obligated to offer an
institutionally developed credit-by-exam option. A student may receive no more than 32 hours of credit from all extra-course examinations including Advanced Placement, CLEP, the International Baccalaureate Program, and credit by examination.

Credits earned through the University's credit-by-examination process will be posted to the permanent academic record in the transfer credit area. This credit will carry an annotation that identifies it as credit-by-examination. It will not carry quality points or a grade and, therefore, will not affect the cumulative grade point average.

To be eligible to sit for a departmental exam, a student must be actively enrolled at Mercer in the semester in which the exam is to be taken. Appropriate fees must be paid prior to the exam and are non-refundable. Application forms for these exams are available in the Office of the Registrar.

Class Auditing Regulations

Students who audit courses are assumed to be seriously interested in the courses for which they enroll. An official entry of “audit” on a student's permanent academic record shall be made only if 75 percent of the classes are attended.

Auditors of studio courses in art and music will pay the same fees as those taking the courses for credit. Applied music courses and physical education activity courses may not be audited. Laboratory science and computer science courses may be audited, but the auditor may audit only the lecture sessions.

Full-time students may audit, with approval of the instructor, any courses for which they are eligible to register. There is no special audit fee for full-time students. A student who is auditing a course may not decide instead to take the course for credit after the last day for course schedule changes (drop/add). Courses that a student audits may not later be taken by that student for credit, nor may the student receive credit-by-exam for these courses. Auditors submit no daily work, take no examinations, and receive no credit for courses audited. They may participate in the class discussion only with the permission of the instructor.

A part-time student may audit courses with approval. The auditing fee for such students is listed in the “Financial Information” section of this catalog.

Please note that laboratory classes, including physical education activity courses, may not be audited.

Class Attendance

The demand for registration in many undergraduate courses exceeds the enrollment capacity, with the result that these classes often “close” during the priority and open registration periods. Some courses carry "Wait Lists" for students interested in registering for these courses should space become available. It is mandatory that students attend classes on the first class day of the semester. Students who are absent on the first class day who have not made prior arrangements with the instructor may be disenrolled from the course in order to allow registration of students on wait lists.

Regular class attendance is expected in most courses. No attendance regulation is prescribed by the University beyond the regulation that addresses attendance on the first class day. Faculty announce their expectations about attendance in course syllabi.

Mercer University is respectful of the religious practices of members of the student body. Students who will be absent from class for religious observances must confer with their instructor(s) regarding the date of the absence at the beginning of each semester or session, or at least two weeks prior to the dates of the absence. The disposition of missed assignments will be arranged between instructor and student. If a mutually satisfactory solution is not reached, the right to establish a reasonable alternative is reserved to the instructor. Students who feel that their academic performance will be compromised by the
alternative assignment/examination timetable may ask that the instructor's dean review the instructor's decision.

Students engaged in University sponsored activities, such as athletic participation, music ensembles, and debate team, are allowed a set number of excused absences. These students enrolled in classes that meet on Monday-Wednesday-Friday (MWF) may not exceed 8 absences. These students enrolled in classes that meet on Tuesday-Thursday (TR) may not exceed 5 absences. For classes that do not meet on a MWF or TR schedule, the number of allowed absences for University sponsored activities may not exceed 20% of the total class meetings. Each absence must be reported to the instructor prior to its occurrence. Absences are taken only to accommodate students as they represent the University in the event. The allowed absences do not include practices or preparation times.

**Student Removal from Classes**

Disruptive or dangerous behaviors can result in students being removed from classroom participation. In such cases, the student will be referred to the University Judicial System.

**Transient Status for Mercer Undergraduate Students**

An undergraduate student who wishes to take academic courses elsewhere as a transient student and apply those credits toward a Mercer degree must obtain written approval in advance from the student's advisor and the Registrar's Office. The student must have been enrolled and attended classes at Mercer for at least one semester prior to requesting permission to study elsewhere. Transient Permission Forms are available in the Registrar's Office. Failure to obtain written approval in advance may preclude acceptance of the transfer credit. A student normally will not be permitted to attend another institution as a transient student for more than two consecutive academic terms. No correspondence work will be accepted for credit toward a degree. Mercer University does accept courses from the Independent Study Programs of the University of Georgia for transfer credit; the maximum credit accepted is 9 semester hours.

A student must be in good academic standing to be approved to take courses as a transient student. Ordinarily, the last 32 semester hours of degree work must be earned in residence at Mercer University. At least 12 semester hours of upper division work in a major, concentration, or specialization and 6 semester hours of upper division work in a minor, if elected, must be done in residence.

Courses that are equivalent to courses offered at Mercer will transfer as long as the host institution has regional accreditation and the student earns grades of C or better in the courses. Course outlines (syllabi) and catalog information may be required before approval for transient status is granted.

Courses taken at another institution will in no way affect the Mercer cumulative grade point average; however, all transfer credit attempted will be considered when determining University honors at graduation.

Transient credit from two-year colleges is limited to 64 semester-hours (refer to section on transfer credit). If 64 hours have previously been transferred from two-year colleges, transient credit will displace previously transferred course hours that are not needed for the student's program completion.

It is the student's responsibility to request that a transcript from the other institution, containing final grades, be sent to the Registrar's Office at Mercer University. No credit will be awarded until an official transcript is received from the institution attended.
Academic Warning, Probation, and Suspension

The minimum standard for satisfactory academic achievement is a grade point average of 2.0 for undergraduate students. Anything below this minimum puts the student’s academic career in jeopardy. Within these guidelines a school may have additional procedures due to special programs. Notations of warning, probation, and suspension will be added to the transcript.

1. Warning
   An academic warning shall be issued to students whose cumulative average is below 2.0. A student with an academic warning may return to academic good standing by achieving a cumulative average of 2.0 or higher.

2. Probation
   Students with a cumulative average below those listed in the following table will immediately incur the status of academic probation. Students with probationary status may be subject to specific conditions in order to enroll.

<table>
<thead>
<tr>
<th>Total Hours Earned</th>
<th>Minimum Cumulative Grade Point Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>0–16</td>
<td>1.40</td>
</tr>
<tr>
<td>17–32</td>
<td>1.70</td>
</tr>
<tr>
<td>33–48</td>
<td>1.80</td>
</tr>
<tr>
<td>49–63</td>
<td>1.90</td>
</tr>
<tr>
<td>64–128</td>
<td>2.00</td>
</tr>
</tbody>
</table>

   (Students below 2.0 but at or above the averages listed in the table will continue to be warned.)

3. Suspension
   Students academically suspended from the University are neither permitted to enroll in any courses nor to participate in any University related activities. Students who fail to fulfill the conditions of their probationary status may be suspended. Students who fail to meet the required minimum cumulative grade point average on three consecutive occasions (including the summer term) will be subject to suspension for one term. Also, any full-time student who fails to pass a minimum of three hours in any term will be subject to academic suspension. Additionally, students who have demonstrated an inability to complete the special academic requirements of their chosen program of study may be suspended. Students may be re-admitted to the University with permission from an academic dean.

For new transfer students completing their first term at Mercer, only hours earned at Mercer that term will be considered for determining academic standing. In subsequent terms, total hours earned will include transfer credit and hours earned at Mercer. In all cases, only Mercer hours are used to calculate the cumulative grade point average.

Eligibility for Participation in Activities

Except where required as a part of class work in a course, a student on academic probation is not eligible to participate in any extra-curricular activities that represent Mercer University. Representative activities include: intercollegiate athletics; student government; student organizations; staff work on campus publications; debate; musical performances; dramatics; cheerleading; theatre stage work and acting.
Recognition of Scholarship

Honors Program

Mercer University’s Honors Program seeks to enrich the learning environment for both students and faculty members. By doing so, it invites new and higher levels of excellence in student research and creative accomplishments. The program particularly works to foster a sense of academic community among faculty members and students of outstanding ability through its cultural events, sponsored activities, and four-year course of study that culminates in a project.

The curriculum is flexible enough to accommodate students who are pursuing a wide variety of majors in Mercer’s undergraduate colleges and schools. The program’s core provides students with a unifying and coherent experience throughout their four years at Mercer. Electives allow students to direct their own course of study tailored to their own interests and degree plans.

The Honors Program emphasizes research, service learning, and study abroad. Myriad opportunities to learn in different ways await exceptionally talented and promising undergraduate students, adding value to their campus experiences and enhancing their preparations for life after graduation.

Core Requirements for All Honors Program Students

Honors Program students enrolled in the College of Liberal Arts (CLA), the Stetson School of Business and Economics (BEM), the School of Engineering (EGR), the Tift College of Education (EDM) and the Townsend School of Music (MUS) must fulfill the following core requirements.

First Year

Fall  HON 101 – First Year Honors Seminar (1) or EGR 101 (1)

Spring  HON 102 – First Year Honors Seminar (1) or EGR 102 (1)

Second Year

Fall  HON 261 – Sophomore Honors Colloquium (1)

Third Year

Fall  HON 361 – Junior Honors Colloquium (1)

Fourth Year

Fall or Spring  HON 496 (3) – Honors Senior Project or equivalent

In addition to the Core Requirements, Honors Program students must complete the requirements specific to the College or School in which they are enrolled. These additional College and School requirements are outlined below.

Additional Requirements for the College of Liberal Arts and the Stetson School of Business

In addition to the Core Requirements, Honors Program students enrolled in the College of Liberal Arts and the Stetson School of Business and Economics must fulfill these requirements in order to graduate with University Honors:
Great Books (GBK): Students in CLA and BEM must also take GBK 101 during their fall semester freshman year.

Additional Hours: Students must take an additional twelve hours selected from the following course sequences. These courses may be taken at any time during the sophomore-senior years. Students must choose one course from at least two different sequences.

- HON 250-251 – Summer Study Abroad Trip (3 hours each)
- HON 310-311 – Interdisciplinary seminars (3 hours each)
- HON 320-321 – Service learning seminars (3 hours each)
- HON 362 – Graduate/Professional School/Internship Preparation seminar (1 hour)

Cultural Events: Students must participate in at least two Honors Program sponsored cultural events at some point during their four years at Mercer. The program will sponsor one event per semester.

Study Abroad: Students must spend either a summer or a semester studying abroad, or satisfy this requirement through travel-study courses, or other courses completed in a study-abroad context that have been approved by the Honors Program Director.

**Additional Requirements for the School of Engineering**

In addition to the Core Requirements, Honors Program students enrolled in the School of Engineering must fulfill these requirements in order to graduate with University Honors:

- Additional Hours: Students must take EGR 202 (1) and EGR 302 (1).
- Cultural Events: Students must participate in at least two Honors Program sponsored cultural events at some point during their four years at Mercer. The program will sponsor one cultural event per semester.
- Poster Exhibit: Students must present their work during their junior and senior years in an annual poster exhibit.

**Additional Requirements for the Tift College of Education**

In addition to the Core Requirements, Honors Program students enrolled in the Tift College of Education must fulfill these requirements in order to graduate with University Honors:

- Cultural Events: Students must participate in at least two Honors Program sponsored cultural events at some point during their four years at Mercer. The program will sponsor one cultural event per semester.
- Portfolio Exhibit: Students must present the culmination of their work during their senior year in an annual portfolio exhibit.
- Additional Hours: Students will take an additional six hours choosing from the following.
  - HON 250-251 – Summer Study Abroad Trip (3 hours each)
  - HON 310-311 – Interdisciplinary seminars (3 hours each)
  - HON 320-321 – Service learning seminars (3 hours each)
  - Courses from the ESOL Endorsement (3 hours each)
**Additional Requirements for the Townsend School of Music**

In addition to the Core Requirements, Honors Program students enrolled in the Townsend School of Music must fulfill these requirements in order to graduate with University Honors:

Cultural Events: Students must participate in at least two Honors Program sponsored cultural events at some point during their four years at Mercer. The program will sponsor one cultural event per semester.

Additional Hours: Students must complete MUS 480-Special Topics in Music: A significant music study experience away from the University, a one to three-credit hour summer or semester study requirement.

**Optional Events for all Honors Program Students**

The Honors Program strongly encourages its students to participate in the annual Honors Convocation, held every fall to recognize new and returning students. Seniors are also encouraged to participate in the annual President's Luncheon, held every spring to recognize graduating seniors. Finally, graduating seniors receive their baccalaureate hoods in a hooding ceremony held every spring during graduation weekend.

**President's List and Dean's List**

Mercer undergraduate students are recognized for superior academic performance by inclusion on the President's List and Deans' Lists. Course load, grade point average, and other specific conditions determine inclusion. Criteria for these lists are shown in the table below.

<table>
<thead>
<tr>
<th></th>
<th>Minimum Normal Letter Graded* Hours</th>
<th>Required Semester GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>President's List</td>
<td>12</td>
<td>4.00</td>
</tr>
<tr>
<td>Deans' Lists</td>
<td>12</td>
<td>3.55</td>
</tr>
<tr>
<td>Deans' Lists</td>
<td>8</td>
<td>3.66</td>
</tr>
</tbody>
</table>

*Letter Grades: A, B+, B, C+, C, D, or F

Inclusion is subject to the following additional conditions:
1. No grades below C
2. Grades of Satisfactory on all Satisfactory/Unsatisfactory graded work in excess of the minimum normal letter graded hours
3. Students are not eligible for either list by virtue of repeated courses
4. Students who have been found responsible for an Honor Code violation are not eligible for either list for the term in which the violation occurred

**Graduation with Honors**

Candidates for bachelor's degrees with a grade-point average of 3.50 will receive their degrees cum laude; those with an average of 3.70, magna cum laude; and those with 3.85, summa cum laude. To be eligible for honors, a student must have earned a minimum of 32 semester hours and at least a 3.50 GPA at Mercer. In determining the GPA's of students with any transfer credit, the total average and the Mercer average separately will be evaluated, and the student will be given the standing of the lower of these two averages. **All college**
work attempted, including D’s and F’s for which transfer credit has not been award-
ed, will be included in the calculation of the cumulative grade point average for grad-
uation with honors.

A student, who by virtue of a grade or grades made in repeated work achieves an over-
all grade point average that would otherwise qualify him or her for graduation with honors, will not be considered eligible to receive honors.

A student who has been found responsible for an Honor Code violation is not eligible to graduate with honors.

Departmental Honors

Departmental honors may be conferred independently of all other distinctions. They are designed to recognize students who have distinguished themselves in the departments of their majors; they will not be announced at graduation, but a notation of departmental honors will be entered on the students’ permanent records. The specific requirements for each department’s honors are listed in this catalog with the course requirements for the major, and details may be obtained from department chairs.

Undergraduate Degree Requirements

No undergraduate student who has not completed the equivalent of two semesters (at least 32 hours of credit) in residence at Mercer will be awarded a Mercer degree. Ordinarily, the last year of academic work (32 semester hours) must be done in residence. At least 12 hours of upper division work in a major, concentration, or specialization and 6 hours of upper division work in a minor, if elected, must be done in residence.

A bachelor’s degree requires a minimum of 120 semester hours of academic courses numbered 100 and above. Many programs of study will require more. Refer to the specific major requirements for the credit hours needed to complete a particular program. Courses numbered below 100 do not count toward the fulfillment of the hours required for graduation. Hours earned in any school or college of the University may be used to satisfy the requirements of any undergraduate degree. Students must, however, fulfill all degree requirements of their particular degrees of choice.

A cumulative grade point average of 2.0 or higher is required for graduation. Students must also have at least a 2.0 average in the minimum requirements for a major, concentration, specialization, or minor. Individual schools require higher than 2.0 averages for admission to some programs and to meet graduation requirements in certain programs. Students should see the specific requirements of their program of study in this catalog.

A student who wishes to complete a second major in a different school/college from that of his/her first major must fulfill the specific course requirements for the second major plus additional requirements that may be arranged on an individual basis. The student should consult an academic advisor in the second major. The advisor and/or the department chair will determine what course work other than that usually prescribed for the major, if any, will be required. For example, a student seeking a degree in engineering or business may earn a second major in the College of Liberal Arts by completing the specific courses listed for the second major and other work that may be deemed appropriate by the advisor and department chair for the second major.

Minors may also be earned across school or college lines under the same provisions as those stated above for majors. The Stetson School of Business and Economics offer minors for non-business students in accounting, business administration, and economics. Majors and/or minors that are earned across school or college lines will be noted on permanent records but not on diplomas.
Second Degree

Students who wish to have two different bachelor's degrees conferred simultaneously must complete: the general education requirements of both programs; both the usual and special requirements of a major, concentration, or specialization in each program; and at least 18 credit hours more than the minimum required to earn one bachelor's degree.

Individuals who seek a second and different bachelor's degree after graduation must complete the general education requirements appropriate to the degree being sought, meet the residence requirements of a major, concentration, or specialization, and spend a minimum of two semesters (at least 32 hours) in residence at Mercer.

Students not in the Stetson School of Business and Economics but seeking a degree in the Managed Academic Path to Success (MAPS) Program in Business may earn that degree only by completing all of the requirements for the second degree, a BBA degree, including the general education requirements.

In cases where course work from a previous degree is used to fulfill requirements for any second degree, the grade point averages for the two degrees will be combined.

Application for Graduation

All students must apply for graduation. It is the student's responsibility to be aware of all department, school/college, and university degree requirements as published in the catalog, and to ensure that such requirements have been met or that appropriate waivers have been secured and filed in the Office of the Registrar.

The application must be filed with the Registrar's Office at least one term prior to the expected date of graduation.

Participation in Commencement Ceremonies

Only those students who are in a position to complete all requirements for graduation by the end of the spring semester may participate in the commencement ceremony for that academic year. Students to whom degrees have already been awarded during the current academic year (i.e., at the end of the previous summer or fall semester) may also participate in that year's commencement ceremony.

In extraordinary situations, a student, who requires no more than 12 credit hours for graduation and plans to complete the degree requirements during the summer session immediately following commencement, may petition the Office of the Registrar for special consideration to participate in the commencement ceremony.

Graduate students may participate according to the policies of their individual schools or colleges. (See "Graduate Studies" section.)

Participation in the graduation ceremony does not necessarily represent conferral of the degree. Degrees are awarded at the end of the terms in which all requirements are met. Students may participate in only one ceremony for each degree sought.

Awarding of Degrees

The University awards degrees at the end of each semester. Diplomas will be released to students and transcripts annotated upon the certification of completion of all degree requirements. A commencement ceremony is held in May of each year. (Please see "Participation in Commencement Ceremony.")

Student Records (Transcripts)

A complete copy of a student's academic record (transcript) may be obtained by the student by presenting a written request to the Office of the Registrar. Telephone and e-mail
requests will not be honored. Transcripts include the student's entire academic history at Mercer University. They include all undergraduate and graduate record information.

Academic records accumulated in a professional school (i.e., law, medicine, and pharmacy) must be requested from that school.

The University does not provide copies of official transcripts received from other schools or institutions.

**Student Rights Pertaining To Educational Records**

The Family Educational Rights and Privacy Act (FERPA) affords students at Mercer University certain rights with respect to their educational records. These rights include:

1. The right to inspect and review a student's educational records within 45 days of the day the Office of the Registrar receives a written request for access.

   The student should submit to the Registrar a written request that identifies the record(s) the student wishes to inspect. The Registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the Registrar does not maintain the records, the student shall be advised of the correct official at the University to whom the request should be addressed.

2. The right to request the amendment of the student's educational records if the student believes them to be inaccurate.

   The student may ask the University to amend a record that he/she believes is inaccurate. The student should write the Registrar, clearly identify the part of the record he/she wants changed, and specify why it is inaccurate. If the University decides not to amend the record as requested by the student, the Registrar (or another appropriate official, if the record is maintained by another office) will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when the student is notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's educational record, except to the extent that FERPA authorizes disclosure without consent.

   One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A “school official” is a person employed by the University in an administrative, supervisory, academic, research, or support staff position (including law enforcement personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

   A school official has a “legitimate educational interest” if the official needs to review an educational record in order to fulfill his or her professional responsibility.

   Another exception which permits disclosure without student consent is disclosure to officials of another school, school system, or institution of post-secondary education where a student seeks or intends to enroll. Upon the request of an institution in which a student seeks or intends to enroll, the University will forward the student's education records to the requesting institution. Upon request, the student may obtain a copy of the record that was disclosed and have an opportunity for a hearing as provided above.
4. The right of a currently enrolled student to request that his/her “directory information” not be released by Mercer University. The University, at its discretion and without the written consent of the student, may release “directory information,” which includes the following items: student name, address, e-mail address, telephone number, date and place of birth, academic program, dates of attendance, degrees and honors received, most recent previous institution attended, and participation in officially recognized activities and sports.

A student request for non-disclosure of the above items must be filed with the Office of the Registrar.

5. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Mercer University to comply with the requirements of FERPA. The name and address of the office that administers FERPA are: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-4605.

U.S. Army ROTC Program

The mission of the ROTC Program and the U.S. Army Cadet Command is to commission future officers to serve as the leadership of the U.S. Army. Students who qualify for and successfully complete the ROTC Program will be commissioned as 2nd Lieutenants in the U.S. Army, the Army National Guard, or the U.S. Army Reserves. Students incur no obligation by simply taking military science classes; any Mercer student may take an ROTC class, but only qualified and selected students will earn commissioning credit.

The Senior ROTC Program produces officers of character, each with a breadth of perspective formed by the variety of experiences inherent in college life. Cadets will demonstrate a capacity for scholastic, athletic, and leadership excellence. Upon being commissioned, lieutenants will be confident of their ability to be competent Army leaders and will be committed to serving in the Army.

The Army ROTC Program is a four year program. The first two years comprise the basic course. Students must complete the basic course prior to enrollment in the advanced course of ROTC. Students may receive credit for the basic course by completing Army Basic Training or the equivalent in the other Armed Services, completing two years at a service academy, completing two years of Navy or Air Force ROTC Training, or completing three or four years of JROTC in high school. Students may also earn basic course credit by successfully completing the 35 day Leader’s Training Course at Fort Knox, Kentucky, in the summer.

The ROTC Advanced Course consists of the last two years of instruction in college. Students in the advanced course are typically juniors and seniors or students in the last two years of graduate study. Students must meet the following requirements for enrollment in ROTC courses:

1. Must be a full-time student earning a baccalaureate or advanced degree
2. Must be at least 17 years old and not older than 30 years of age at graduation
3. Must be of good moral character, as normally substantiated by having no record of disciplinary problems or civil convictions
4. Must be a citizen of the United States
5. Can have no more than three dependents and cannot be the sole parent of any dependents
6. Must be medically fit
7. Must be proficient in the English language

Students may apply for a wide variety of Army ROTC scholarships. Incoming freshmen
may apply online for a four-year ROTC scholarship at armyrotc.com and must list Mercer University (FICE Code 001580) as one of their schools of choice. A student may also apply for scholarships through the start of his/her junior year or the beginning of the second-to-last year in a graduate program. Students may also apply for a Dedicated ARNG three-year scholarship or an Army Reserve two-year scholarship, if they have the basic course completion credit mentioned earlier. Students must understand that scholarships will be awarded, based upon availability, to the most qualified students under the scholar/leader/athlete model who have expressed a desire to serve as commissioned officers in the U.S. Army.

Army ROTC scholarship benefits include:

1. Full tuition
2. A $1,200 per year book allowance to help offset the cost of books
3. A monthly cadet stipend of $300 (freshmen), $350 (sophomore), $450 (junior), or $500 (senior)
4. Free room and board from Mercer University

Basic scholarship eligibility includes:

1. Being a U.S. Citizen
2. Being at least 17 years old and not older than 30 years of age by June 30th of graduation year
3. Earning a minimum score of 920 on the SAT (not necessary for junior- and grad-level degree applicants)
4. Earning a minimum CGPA of 2.5
5. Being medically qualified
6. Having the physical ability; must pass the standard Army Physical Test
7. Having a good moral character
8. Being enrolled full-time in an approved academic discipline; full-time is defined as completing 12 or more credit hours per semester.

Extracurricular Activities

Army ROTC students in good standing are eligible to participate in Ranger Adventure Training, survival training, and rappelling, which is conducted as part of the ROTC curriculum; this training is offered during voluntary weekend trips. The ROTC Department enters teams in every intramural sport on campus. ROTC cadets are highly sought after as resident assistants, rifle team members, and cross country team members.

Credits

All Military Science courses will be taken for a letter grade and not on an S/U basis. Students receive two credit hours for each basic course class successfully completed (MIL 101, 102, 201, and 202). Students receive three credit hours for each advance course class successfully completed (MIL 301, 302, 401, and 402). Students will receive eight credit hours for attending the 35-day Leader's Training Course, in lieu of completing the four basic classes. Students will receive one hour of credit for each of the following courses completed, with PMS approval only: MIL 451 and 452.
Professional Military Education

The principal element of the Professional Military Education requirement is the baccalaureate degree. As an integral part of that undergraduate education, cadets seeking an officer's commission are required to take HIS 330 (The First and Second World Wars, 3 credit hours). Senior cadets only, who were wait-listed and unable to schedule HIS 330 during their freshman, sophomore or junior years, may substitute HIS 165 (Problems in American History) for HIS 330.

The Mercer Global Ambassador Program

The Mercer Global Ambassador (GAP) Program is designed to cultivate a future generation of forward thinking Mercerians poised to make important contributions to the global community. The program is developed to supplement the education of any Mercer student interested in broadening the horizons of their knowledge and education beyond the borders of the United States. The primary objectives of this program are to:

1. Produce world citizens who are well informed and sensitive to cultural diversity
2. Promote cross-cultural communication and awareness
3. Encourage Mercer students to broaden their scope of service to include the international arena
4. Promote global education and awareness on the Mercer campus
5. Enhance the credentials of Mercer students with this special offering

Upon the successful completion of the program, students will receive a letter recognizing their efforts, listing their works and designating them as Mercer Global Ambassadors. The students' university transcripts will indicate completion of the program.

Students must apply for admission into the Global Ambassador Program. To qualify, students must be in good academic standing and have an overall GPA of 3.0 or higher. Interested students become eligible to apply by the second semester of full-time enrollment at Mercer University. If interested, please contact Dr. Eimad Houry in the Department of Political Science for an application form or to ask any questions about the GAP.

Becoming a global ambassador is an academic and experiential process that requires learning and applying that knowledge for the betterment of global understanding and communication. In order to qualify for recognition through the GAP, a Mercer student must do the following:

I. Academic Requirements

A global ambassador is a conduit for inter-cultural communication, building bridges to enhance mutual respect and understanding between cultures. To accomplish this task, the student must study and reflect on the language, history, people, and current conditions of other societies. To this end, the academic component of the GAP entails completing all of the following:

1. Course Work: Courses taken to satisfy this requirement for the GAP cannot be used to satisfy the course requirements of another program. GAP students must take a minimum of two courses (or 6 semester hours) from two of the following groups of courses:
   (a) Art: ART 368
   (b) Christianity: CHR 356, CHR 357
2. **Foreign Language Competency:** Acquired through the completion of at least two semesters of foreign language courses beyond the first year introductory courses required of all CLA students. Specifically, GAP students should complete the 251 and 252 sequence.

3. **Study Abroad:** Students must study/live abroad for at least one full semester. Whenever possible, students will be encouraged to study in countries where they will have service opportunities in the hope of involving them with the local community.

4. **Model Conferences:** Mock conferences are held to mimic the debates of several international bodies such as the Model United Nations, Model European Union, Model Arab League, Model NATO, just to mention a few. Students can participate in one or more of these conferences in order to learn about the most pressing global issues and conditions affecting lives at home and abroad.

**II. Co-curricular/Experiential Requirements**

GAP students are expected to apply their knowledge in the service of international issues either at home or abroad. A minimum of 60 hours is required for the life of the program and can be attained through involvement in at least two of the following types of activities:

1. **Community Outreach:** This may involve organizing global awareness events or exercises for local schools, K-12, or hosting events on and off the Mercer campus designed to educate the Mercer and Macon communities about important international issues of concern locally and/or globally. Interested students would be encouraged to prepare interactive lesson plans on international issues of relevance to either share with local teachers, or to present in local schools.

2. **Global Citizenship:** In keeping with Mercer's mission to make a difference, GAP students will participate in an international service-learning program. This could be done on the home front by working with immigrant communities as translators, or even teaching English as a second language. However, a more adventurous and ambitious undertaking would be to consider doing good work abroad. There are opportunities available all over the globe and many are offered for short periods of time like a week. Either way, students will have the opportunity to apply the knowledge they acquire in the classroom.

3. **Cross-cultural Friendships:** A large number of international students arrive to study at Mercer every year. GAP students can serve as hosts and develop friendships over time. Ambassadors can also serve as conversation partners with foreign students enrolled at the English Language Institute (ELI) at Mercer.

4. **Study Abroad Peers and Tutors:** Although a large number of students express an interest in studying abroad most never do because of uncertainties about the host countries and conditions. GAP students can serve as an important resource to inform prospective study abroad students about the experiences they have had traveling and living in other countries.
Students are responsible for demonstrating and documenting their own hours in con-
junction with the director of the program. In addition, it is important to point out that all of the
service-learning activities will be carried out under faculty supervision and will involve aca-
demic exercises that require reflection and analysis. Some, but not all the service-learning
work can qualify for independent study hours at the discretion of individual departments.

**Pre-Professional Work**

In addition to the regular courses leading to the Bachelor of Arts, Bachelor of Business
Administration, Bachelor of Science, Bachelor of Science in Nursing, and Bachelor of
Science in Engineering degrees, pre-professional work is offered for students expecting to
enter any of the following professions: theology, education, law, medicine, nursing, pharma-
cy, dentistry, and medical technology. A student expecting to enter any of these professions,
except teaching, will be assigned to a faculty advisor qualified to direct pre-professional
study. Students who have questions regarding the pre-professional requirements should
consult the associate dean of the college or school of enrollment. Early in his/her sopho-
more year, a student expecting to enter the profession of teaching should consult the chair
of the Department of Teacher Education.

**Pre-Legal Preparation**

There is no prescribed program of study for pre-law students. Almost any academic
major provides satisfactory preparation. Law schools stress the advantages and diversity
offered by a sound liberal arts, business and economics, or engineering education, and
advise undergraduates to take courses that will develop their abilities to write well, to read
critically, and to reason logically. The prospective law student is advised to consult the cat-
alog of the Walter F. George School of Law for information concerning admission require-
ments.

**Mercer Law School Guaranteed Acceptance Program**

Mercer University recognizes that some undergraduate applicants are considering a
career in law. To help such applicants pursue their dream and to prepare for postgraduate
study in law school, the Admissions Committee of Mercer University’s Walter F. George
School of Law and the Office of Undergraduate Admissions offer a special program for
qualified high school seniors. Qualified students, upon their enrollment for undergraduate
study at Mercer University, will be guaranteed acceptance to the Mercer Law School for
either of the first two academic years following their graduation from Mercer’s bachelor’s
degree program.

To qualify for guaranteed acceptance to the Mercer Law School, the Mercer undergrad-
uate must meet the following requirements:

1. Score a combined 1800 on the SAT or graduate in the top 5% of the high-school class;
2. Have a cumulative GPA of at least 3.50 at the time of Law School application and com-
plete the Mercer undergraduate degree with at least a 3.50 cumulative GPA;
3. Complete at least 60 undergraduate credit hours at Mercer University;
4. Score at least at the 65th percentile of the Law School Admissions Test (LSAT);
5. Demonstrate a commitment to public service; and
6. Demonstrate the character, fitness and capability of satisfactorily completing the Law
   School program and being admitted to the bar.
Pre-Health Preparation
(Pre-Dental, Pre-Medical, Pre-Medical Technology, and Pre-Veterinary)

Professional schools look for individuals from diverse backgrounds who possess a variety of skills and interests. However, the most important skill, with respect to preparation for health-related professional schools, is the ability to use critical thinking to solve problems. Undergraduate students develop this skill through practice in mathematics and science courses, the foundations of a pre-health student’s curriculum. While specific courses in biology, chemistry, and physics are recommended for pre-health students, the fundamental importance of mathematics to successful study of the sciences means that mathematics competency at or above the pre-calculus level (MAT 133) must be prerequisite to even considering a pre-health track.

As the admissions requirements vary somewhat between health-related professional schools, pre-health students are responsible for learning the requirements at the professional schools to which application is likely, and for discussing these requirements with the pre-health advisor. Most health-related professional schools' admissions requirements include: one year of general chemistry with laboratories (CHM 111 and 112), one year of physics with laboratories (PHY 141, 121L, 142, and 142L; or PHY 161, 121L, 162, and 162L), one year of introductory biology with laboratories (BIO 211 and 212), and one year of organic chemistry with laboratories (CHM 221 and 222). Many health-related professional schools highly recommend a course in biochemistry (BIO 465). Many medical schools have additional requirements, such as calculus (MAT 191 and 192). Schools of dentistry and optometry often recommend certain additional courses, especially microbiology (BIO 303) and introductory psychology (PSY 101). Veterinary medicine schools often require additional courses in biology, especially comparative animal physiology (BIO 325).

While a pre-health track includes the courses required as preparation for health-related professional schools, pre-health tracks are not academic majors. There are no requirements or limitations on academic major areas of study for pre-health students. Health-related professional schools look for students with academic records that reflect their commitment to lifelong learning, and no preference is given to any academic major in reviewing applications to health-related professional schools. Mercer University’s faculty members strongly recommend that pre-health students choose academic majors based solely upon personal enthusiasm for an area of study. The successful pre-health student must demonstrate a superior level of motivation, spurring exceptional academic progress, and the academic major should interest the student sufficiently to catalyze this motivation.

Pre-health students are strongly urged to complete the requirements for a Bachelor of Arts degree, a Bachelor of Science degree, or a Bachelor of Science in Engineering degree. Most successful practitioners and most health-related professional schools recognize the value of earning an undergraduate degree and highly recommend completing a bachelor's degree program before starting professional school. It is possible, however, for an exceptional pre-health student to complete a pre-health track and to proceed to a health-related professional school without graduating with a bachelor's degree. Students who complete 90 semester hours of credit at Mercer University, including 33 semester hours of natural sciences and all of the general education requirements of the College of Liberal Arts (with the exception of the senior capstone course), are eligible for the Bachelor of Science in Dentistry degree or the Bachelor of Science in Medicine degree. The Bachelor of Science in Dentistry will be awarded upon the completion of two years at a dental school, and the Bachelor of Science in Medicine will be awarded upon the completion of one year of work at a medical school.
Within the School of Engineering, the pre-medical requirements may be met by students specializing in biomedical engineering. The goal of this problem-solving oriented curriculum is to prepare students for successful study in medical school, further education in graduate school, or practice in the biomedical engineering profession. Students planning to specialize in biomedical engineering may apply directly to the Dual Biomedical Engineering Medical School Admissions Program (DBEMSA). Students who successfully complete this program are guaranteed admission to the Mercer University School of Medicine. More information is available at the Biomedical Engineering Department's office.

For information about the Bachelor of Science in Medical Technology, see the "College of Liberal Arts" section.

Mercer University School of Medicine Guaranteed Acceptance Program

Mercer University School of Medicine opened in 1982 with a mission to educate physicians to meet healthcare needs of rural and underserved areas of Georgia. Today, Mercer-educated physicians practice in 112 towns and cities and 87 counties in Georgia and manage some 1,320,000 patient visits each year.

Through a partnership with the College of Liberal Arts, the School of Medicine offers a Guaranteed Admission Program for their Doctor of Medicine degree. Up to ten incoming freshmen will be selected each year for this special program. To be eligible for the program, candidates must be Georgia residents and United States citizens. High school students must apply early in the fall of their senior year in order to complete the admission process by February or March of their senior year.

Requirements include, but are not limited to:

1. A score of at least 1350 (math, verbal) on the SAT, or a 30 on the ACT, and a high school GPA of 3.70 or higher on a 4-point scale;
2. Letters of recommendation;
3. All undergraduate course work must be completed at Mercer University;
4. Participating students must maintain a Mercer GPA of 3.50 or higher;
5. Students must score 28 or higher on the Medical College Admission Test (MCAT) before the end of the last year of their undergraduate program, with a score in the verbal component of a least a 9.

Pre-Nursing Preparation

A minimum of one year (30 semester hours) of pre-professional education is required prior to entering the three-year generic, pre-licensure Bachelor of Science in Nursing (BSN) program in the Georgia Baptist College of Nursing. For students enrolled in the College of Liberal Arts, this work must include credit for: English Composition I and II, or equivalent; Introduction to Psychology, PSY 101; Developmental Psychology (human growth and development across the life-span), PSY 245; Human Anatomy and Physiology I and II, BIO 202 and 203; Elementary Statistical Methods, MAT 126; Christianity, CHR 101 or 150; Introduction to Sociology, SOC 101; Introduction to American Government, POL 101; and The First-Year Experience, UNV 101.

Students in the Mercer pre-nursing program must earn a minimum grade of C in each course (a grade of S is required in UNV 101) and a minimum grade point average of 2.0. Admission to the Georgia Baptist College of Nursing is based on academic success in the pre-nursing program and other factors that indicate a reasonable probability of successful completion of academic work in the College of Nursing.
Pre-nursing students will work very closely with an academic advisor and a nursing advisor from the Georgia Baptist College of Nursing. Pre-nursing students will have a number of opportunities to visit the College of Nursing and various nursing clinical sites in the Atlanta area. They will interact with College of Nursing faculty members and students as part of their first year experience.

**Pre-Pharmacy Program**

The Guaranteed Admissions Plus Degree Program (GAPDP) in Pharmacy will be offered by the College of Liberal Arts and the College of Pharmacy and Health Sciences. Students who meet all of the criteria of the GAPDP will be accepted into the Doctor of Pharmacy program at the College of Pharmacy and Health Sciences after the successful completion of 90 credit hours of undergraduate coursework. The Mercer University College of Liberal Arts will award the Bachelor of Science in Health Science degree to those GAPDP students who then successfully complete one year of work in the Doctor of Pharmacy program at the College of Pharmacy and Health Sciences.

Pre-pharmacy GAPDP students must apply to enter Mercer University and the GAPDP as first-time undergraduate students in the College of Liberal Arts. The application process requires separate evaluations for admissions into Mercer University and into the pre-pharmacy GAPDP. Once admitted to the GAPDP, students must participate in all academic advising and pharmacy career seminar programs presented by the Mercer University pre-medical sciences advisor and by the Associate Dean for Student Affairs and Admissions at the College of Pharmacy and Health Sciences. GAPDP students must earn all pre-pharmacy program course credit hours in the College of Liberal Arts. Occasionally, dual-enrollment credit hours, earned while the student was still in high school, will be accepted to fulfill the pre-pharmacy program requirements if special approval has been granted by the Associate Dean for Student Affairs and Admissions at the College of Pharmacy and Health Sciences.

Pre-pharmacy GAPDP students must maintain an overall grade point average of at least 3.00, as well as a minimum 3.00 grade point average in all mathematics and science courses. A minimum score on the Pharmacy College Admission Test (PCAT) and documentation of 500 hours of pharmacy experience are also required. Like all students in the College of Liberal Arts, pre-pharmacy GAPDP students must declare an academic major between the completion of 30 and 60 credit hours of coursework and must remain on track and in good standing in the academic major. GAPDP students must successfully complete 90 credit hours of coursework at Mercer University, including all the pre-pharmacy program courses listed below, by the end of the spring semester of the third year of undergraduate study. (Note that dual-enrollment courses can fulfill academic requirements, but they do not contribute to the 90 credit hours that GAPDP students are required to earn while in residence.) Entry into the Doctor of Pharmacy program at the College of Pharmacy and Health Sciences will also require the successful completion of an interview with Pharm.D. program faculty during the junior year and completion of the appropriate application materials as directed by the Associate Dean for Student Affairs and Admissions.

The coursework required for the pre-pharmacy GAPDP includes: Introductory Biology (BIO 211, 212); General Chemistry (CHM 111, 112); Organic Chemistry (CHM 221, 222); Biochemistry (BIO/CHM 465); Public Speaking (COM 210); Principles of Economics (ECN 150 OR ECN 151); Calculus (MAT 191); Elementary Statistical Methods (MAT 126); Introduction to Physics (PHY 141+121L OR PHY 161+121L); and the College of Liberal Arts general education requirements, excluding senior capstone.
Pre-Physician Assistant Program

The College of Pharmacy and Health Sciences offers a physician assistant professional curriculum leading to the Master of Medical Science (MMSc) degree. While admission to this program is open to qualified applicants with undergraduate degrees, a Guaranteed Admissions Plus Degree Program (GAPDP) option is available only to students enrolled in the Mercer University College of Liberal Arts. Students who meet all of the GAPDP criteria will be accepted into the MMSc program at the College of Pharmacy and Health Sciences after the successful completion of 90 credit hours including prerequisite undergraduate coursework and experiential work. The Mercer University College of Liberal Arts will award the Bachelor of Science in Health Science degree to those GAPDP students who then successfully complete one year of work in the MMSc program at the College of Pharmacy and Health Sciences.

Pre-physician assistant GAPDP students must apply to enter Mercer University and the GAPDP as first-time undergraduate students in the College of Liberal Arts. The application process requires separate evaluations for admissions into Mercer University and into the pre-physician assistant GAPDP. Once admitted to the GAPDP, students must participate in all academic advising and physician assistant career seminar programs presented by the Mercer University pre-medical sciences advisor and by the Associate Dean for Student Affairs and Admissions at the College of Pharmacy and Health Sciences. GAPDP students must earn all pre-physician assistant program course credit hours in the College of Liberal Arts.

Pre-physician assistant GAPDP students must maintain an overall grade point average of at least 3.0, as well as a minimum 3.0 grade point average in all pre-requisite courses. Only grades of C or better are acceptable for pre-requisite coursework. Like all students in the College of Liberal Arts, pre-physician assistant GAPDP students must declare an academic major between the completion of 30 and 60 credit hours of coursework and must remain on track and in good standing in the academic major. GAPDP students must successfully complete 90 credit hours of coursework at Mercer University, including all the pre-physician assistant program courses listed below, by the end of the spring semester of the third year of undergraduate study. Entry into the MMSc program at the College of Pharmacy and Health Sciences will also require the completion of the appropriate application materials as directed by the College of Pharmacy and Health Sciences PA Program. These application materials include the following: completion of a minimum of 1000 hours of health care experience and submission of three references – one from a PA or MD, one from a university instructor, one additional non-relative. Final acceptance into the PA Program is contingent upon a successful interview with the program faculty during the junior year.

The coursework required for the pre-physician assistant GAPDP includes: Introductory Biology (BIO 211, 212); Human Anatomy and Physiology (BIO 202, 203); Microbiology (BIO 303); General Chemistry (CHM 111, 112); Organic Chemistry (CHM 221, 222); Biochemistry I (CHM 465); Elementary Statistical Methods (MAT 126); Introduction to Psychology (PSY 101), Developmental Psychology (PSY 245); and the College of Liberal Arts general education requirements, excluding senior capstone.

Pre-Theological Education and the Roberts Department of Christianity

The Roberts Department of Christianity is an academic department within the College of Liberal Arts of Mercer University. In addition to providing an opportunity for all Mercer students to be exposed to the broad Christian tradition, the department offers students, who intend to enter the Christian ministry, a solid foundation for later theological education.
Future pastors, ministers of education, ministers of music, ministers of counseling, ministers of youth, and those who plan a career in teaching religion in academic environments major in the Roberts Department of Christianity. The James and Carolyn McAfee School of Theology in Atlanta, divinity schools, seminaries, and graduate schools of religion highlight the importance and advantages of a broad liberal arts education. The Association of Theological Schools recommends that pre-theological studies include the following fields: religion, English, history, philosophy, natural sciences, social sciences, and foreign languages.

Graduate schools for the study of religion expect their students to be able to speak and write effectively, to think logically, and to read critically. All of these are primary goals of the Roberts Department of Christianity. In addition, the department hopes to produce students who act compassionately in the world.

**Teacher Education Program: Undergraduate Program**

The Tift College of Education offers programs leading to Georgia teacher certification at the elementary, middle grades, or secondary school levels, as well as in the P-12 area of music. Mercer's teacher education programs are approved by the Georgia Professional Standards Commission and accredited by the National Council for Accreditation of Teacher Education. The completion of a teacher education program does not guarantee certification by the state of Georgia. Students must successfully complete the appropriate certification tests and meet other criteria for certification, as set by the Georgia Professional Standards Commission. Satisfactory levels of performance on all certification tests are established by the Professional Standards Commission.

In the approved teacher education programs, which lead to certification in early childhood education and special education (through a major in the Holistic Child) and in middle grades education, students work closely with an advisor from the Tift College of Education to plan their programs of study. In secondary education and in the P-12 certification field, a coordinator from the Tift College of Education works cooperatively with a representative from the academic major in which the student is seeking certification. To remain in a teacher education program, students must maintain a 2.5 cumulative GPA and a 2.75 GPA in all courses required for certification, including the major. A student must earn at least a C grade in all academic courses presented for certification to the Professional Standards Commission. See the "Tift College of Education" section of this catalog for a more detailed description of the various teacher education programs.

Admission to baccalaureate study at Mercer does not include admission to an undergraduate teacher education program. All information and forms concerning teacher education admission criteria are included in Mercer University’s *Teacher Education Handbook*, which is available at www.mercer.edu, and from the Tift College of Education.

**Summer School**

Summer School is an integral division of the instructional year at Mercer University. The same standards that are maintained during the academic year prevail; accordingly, semester-hour credits earned then are equal in value to those earned during any other semester. The maximum load for the entire summer is 12 semester hours.

The regular Mercer faculty is supplemented by visiting professors. In Education, and in some other departments, special courses are offered that are not given during the academic year. The boarding facilities, the recreational opportunities, the student center, the University Center, the library, and all other facilities of the University are available during the summer term.
The Office of International Programs

The Office of International Programs (OIP) is the central administrative unit of international education at the University. The OIP is responsible for the study abroad program, student and faculty exchange programs, international student and scholar services (F-1 and J-1 visa advising) and the English Language Institute (ELI). The OIP manages the University’s relationships with foreign universities and academic programs. The OIP’s mission is to support students and faculty in each of these areas of international education. In addition, the OIP works with the Office of Admissions on the recruitment and matriculation of international students.

The Study Abroad Program

The Office of Study Abroad facilitates foreign educational experiences for students in their major areas of study. A study abroad experience is a fundamental part of a liberal education and is instrumental in the individual pursuit of vocation. Students who study abroad at Mercer University demonstrate stronger skills in critical thinking, problem-solving, and cross-cultural communication. Study abroad students better understand globalization and the major cultural, political, and economic differences in modern societies. They also deepen their own cultural and personal values through reflection. Mercer’s study abroad programs prepare students for life in the complex and interdependent world of the twenty-first century.

Semester or Year-long Experiences

Study abroad opportunities are available to a variety of undergraduate majors in each of the colleges and schools. Mercer undergraduates can participate in one of three types of semester- or year-long study abroad programs: Student Exchange Programs, Mercer in Oxford, and International Transient Study Abroad Programs.

Student Exchange Programs

Mercer has direct exchange relationships with universities in Hong Kong, Japan, Morocco, Scotland, South Korea, Sweden, and Thailand. In addition, Mercer belongs to the ISEP (International Student Exchange Program) consortium, which consists of study partners in 39 countries.

When students choose an exchange program or a Mercer Semester program for study abroad, they earn both G.P.A. credits and hours that apply to their Mercer degree requirements.

Mercer in Oxford

The Oxford Overseas Study Course, which is a tutorial program modeled after The University of Oxford’s method of education, is a competitive study abroad option for Mercer’s students. Mercer is one of three private American campuses invited to participate in this selective academic program. While Mercer students do not matriculate into one of Oxford's colleges (this is reserved for Oxford degree-seeking students only), they are based in-part at St. Peter's College with Dr. Francis Warner, Lord White Fellow (now Emeritus Fellow) and Tutor in English Literature. Mercer students are given many of the same study and social privileges as their Oxford peers. Mercer students are taught individually by Oxford professors (dons), are given access to selected Oxford libraries, and are given exclusive membership in the Oxford Student Union. Admission to the
Oxford Overseas Study Course requires a 3.5 G.P.A. for initial consideration. The program is open to all eligible Mercer students. Students are required to apply one year (two semesters) in advance for the program; space is very limited and is awarded on a competitive basis.

International Transient Study Abroad Programs

Students who enroll in an international transient program will be able to take courses abroad to satisfy requirements for graduation and that will transfer into the total number of hours a student has completed but which will not factor into the student's Mercer G.P.A.

Short-term Study Abroad Programs

Faculty-led Study Abroad Programs

Mercer University offers a variety of short-term, faculty-led study abroad programs on an annual basis. These programs normally take place during the summer sessions. Shorter study tours, however, are frequently offered during the fall or spring breaks as a field component to specific courses.

Faculty-led study abroad programs encourage students to learn more about another culture and earn Mercer academic credit. This type of study abroad program also enables Mercer professors to mentor their students in a different cultural setting. Faculty-led study abroad programs usually last from two to five weeks and range in the number of credit hours given (normally three-to-six hours of credit). Mercer faculty-led study abroad programs have taken place in Australia, Belize, Brazil, Costa Rica, Dubai, France, Greece, Italy, Japan, Moldova, Scotland, Senegal, and Tanzania. The types of faculty-led study abroad programs will vary by professor(s) and academic year.

Mercer on Mission

Young men and women today are searching for ways to make their lives meaningful in an increasingly complex world. To this end, students are volunteering for community service projects in record numbers. As an authentic faith-based university, Mercer University is responding to this yearning on the part of its students through an innovative study abroad and service-learning program called Mercer on Mission. The test of authentic faith is action in the developing economies of the world. Mercer on Mission is a faculty-led study abroad program that offers six hours academic credit and incorporates a service-learning project on-site in a foreign country. Since the year 2007, Mercer on Mission has taken students to Brazil, Costa Rica, China, Kenya, Liberia, Senegal, and South Africa.

Related Study Abroad Information

All students accepted into Mercer exchange programs, the Oxford program, and international student transient programs are required to take an 8-week, one-credit-hour course called ISA 101, “Cross-cultural Competency in Study Abroad.” This course explores the cultural nuances of living and studying overseas and gives the student the necessary tools for a successful international learning experience.
General Study Abroad Acceptance Criteria*

Mercer Student Exchange Programs
- G.P.A. of 3.0 or higher
- Two letters of recommendation from Mercer faculty members
- Acceptance by the Mercer partner institution

Mercer in Oxford
- G.P.A. of 3.5 or higher
- Two letters of recommendation from Mercer faculty members
- Acceptance given by Mercer University, per review of student's application by the Oxford Overseas Study Course

Mercer Faculty-led Study Abroad Programs
- G.P.A. of 2.5 or higher
- Student meets pre-requisites (if any)
- Acceptance given by the faculty program director

Mercer on Mission Programs
- G.P.A. of 2.5 or higher
- Students write a reflection essay
- Students meet pre-requisites (if any)
- Acceptance given by the faculty program director and Dean of Chapel

International Transient Study Abroad Programs
- Minimum G.P.A. requirements vary by program and site.
- Please consult with a study abroad advisor for more information.

*These acceptance criteria are generally stated in this catalog. Visit the Office of Study Abroad in Ryals Hall or consult with the program's website at www.mercer.edu/studyabroad.

Every student who studies abroad must get approval from his or her academic advisor and the coordinator of study abroad programs. With the permission of the Department of Foreign Languages, students can take overseas language and content courses in French, German, Latin, and Spanish (see the study abroad policy in the section on “Foreign Language and Literatures”). Students may also earn elective credit in the languages of Arabic, Czech, Danish, Chinese, Italian, Japanese, Korean, and Swedish at Mercer's partner study programs.

Students with a concentration in International Affairs are required to study abroad for at least one semester (refer to the requirements for concentrations within the section on the College of Liberal Arts). Business students in the MAPS (Managed Academic Path to Success) program can study abroad, do an internship, or a combination of the two as fulfillment of their 'experiential component' (see the study abroad and MAPS description in the section on the Stetson School of Business and Economics).
General Study Abroad Program Costs**

Mercer Student Exchange Programs

- Mercer Tuition
- Mercer Room & Board
- $500 Exchange Program Administrative Fee
- Worldwide Assistance Insurance Plan
- Travel-related costs are separate

Mercer in Oxford

- Fall Semester (September – December): Mercer Tuition
- Spring Semester (January – mid-June): Mercer Tuition plus the excess of the costs of the Oxford program (approximately $6,000)
- $500 Study Abroad Administrative Fee
- Worldwide Assistance Insurance Plan
- Travel-related costs are separate

Mercer Faculty-led Study Abroad Programs

- Mercer Tuition
- Travel-related costs
- $50 Study Abroad Administrative Fee
- Worldwide Assistance Insurance Plan

Mercer on Mission

- Six hours of Mercer credit (required)
- $50 Study Abroad Administrative Fee
- Worldwide Assistance Insurance Plan
- Note: Students receive a competitive travel grant

Mercer International Transient Programs

- Pay overseas tuition
- Pay overseas room and board
- Purchase a Worldwide Assistance Insurance Plan
- $250 Administrative Fee
- Travel costs

**Note: These explanations of program fees are a general indicator of student costs and do not accurately reflect the actual program costs or their related travel expenses. All fees are subject to change.

Financial aid could be available to eligible students who elect to study abroad. Mercer institutional scholarship aid is available only for those students enrolling in an exchange program or in the Oxford Overseas Study Course. Financial Aid may be applicable to
International Study Abroad Transient Programs. Students who are uncertain about whether or not their aid is applicable to a study abroad program should see a study abroad advisor and a counselor in the Office of Student Financial Planning.

Students interested in studying abroad can obtain further information from the Office of Study Abroad in Ryals Hall. More information can be gathered from the department's website at http://www.mercer.edu/studyabroad. Telephone and e-mail inquiries can be made at (478) 301-2573 or at studyabroad@mercer.edu.

Mercer Exchange Programs

The OIP manages all student and exchange programs at the University. Student exchange programs are usually for one semester and are done in partnership with another foreign university. Mercer students can participate in exchange programs for undergraduate academic credit at the following universities: Al Akhawayn University (Morocco), Hong Kong Baptist University (China), Kalmar University (Sweden), Lulea University (Sweden), Seinan Gakuin University (Japan), the University of the West of Scotland (formerly known as Paisley University) (Scotland), Yonok University (Thailand) and Yonsei University (South Korea). Students interested in participating on any of these exchange programs should contact the Office of International Programs at (478) 301-2573 or at oip@mercer.edu.

Mercer faculty can participate in an existing professorial exchange program, such as at Seinan Jo Gakuin University (Japan), or propose a new academic linkage with a foreign university. There are other student and faculty exchange relationships for the Medical School in Japan, South Korea, and Venezuela. The medical exchange programs are exclusively reserved for people in that professional school. In addition, instructors at the English Language Institute (ELI) can participate in an academic exchange with Point Language School (Brazil). Faculty members interested in arranging an exchange program should contact the director of international education at (478) 301-2573.

International Student and Scholar Services

The International Student and Scholars’ Program mission is to advise Mercer students with F-1 visas and exchange students/scholars with J-1 visas. The coordinator of international student and scholar services is the person responsible for advising Mercer’s international community on these federal immigration regulations. In addition, the program advisor orients Mercer’s international community on the cultural adjustment to the classroom and the campus. The coordinator also serves as the advisor for the Mercer International Student Association (MISA).

For more international student and scholar information, please consult the department’s website at www.mercer.edu/international. Telephone inquiries can be made (478) 301-2573.

English Language Institute

Offered on the Atlanta campus, the Mercer University English Language Institute (ELI) is designed to assist international students with developing English language skills at levels sufficient to succeed in an American university undergraduate or graduate program. Grammar, reading, writing, and speaking skills are taught, using an integrated approach. These skills are reinforced in the computer language laboratory. Students who successfully complete the ELI program (level six) will fulfill the English language requirement for acceptance into most undergraduate and some graduate programs.
The curriculum is divided into six levels of skill development. There are six eight-week academic sessions that begin in August, October, January, March, May, and July.

International students interested in a degree program in Macon may take ELI courses in Atlanta prior to matriculation at a Mercer college or school. Upon successful completion of the Atlanta ELI, international students may transfer to the Macon campus. Please refer to the International Admissions criteria in the catalog for more information.

For more information about enrolling at the English Language Institute, visit the department's website at www.mercer.edu/eli, send an e-mail inquiry to eli@mercer.edu, or telephone (678) 547-6151.
College of Liberal Arts
Richard C. Fallis, Ph.D., Dean
Dale E. Moore, Ph.D., Associate Dean
Edward J. Weintraut, Ph.D., Associate Dean

Purpose

The purpose of the College of Liberal Arts is to provide a liberal arts education within the broad outlook of the Judeo-Christian intellectual tradition. The College is committed to the goals of learning and faith: learning as both the means to and the result of scholarship; faith as the personal appropriation of truth for living. Being open to all qualified persons who seek to grow through education, the College strives to uphold the values of personal freedom, individual responsibility, and community service.

General Education

Mercer University’s founding vision, articulated by Jesse Mercer in the 1830s, dedicating us to promote free inquiry, religious liberty, and inclusiveness-values consonant with Baptist heritage. University President William D. Underwood underscored that vision in 2006, noting that “…the extent to which a university transforms the lives of individual students, who in turn transform their communities, represents the ultimate measure of a university’s greatness.” To put this transformative vision into practice within the communities we serve, a Mercer University education emphasizes experiences that infuse intellectual growth, cultural understanding, civic responsibility, and moral discernment with practical competencies.

Four Outcomes of General Education

A Mercer education emphasizes experiences that foster intellectual growth, cultural understanding, civic responsibility, and moral discernment. These four interrelated capacities inform the intended outcomes for general education.

Intellectual growth may be interpreted to include complexity of thought, integrative and synthesizing ability, quantitative analysis, qualitative analysis, critical inquiry, critical reflection, creative expression, integration of life and learning experiences, self understanding and knowledge, and capacity for continued learning and intellectual growth.

Cultural awareness may be interpreted to include global perspective, intercultural perspective, empathy, perspective taking, engaging the other, and cultural appreciation.

Civic responsibility may be interpreted to include active responsible citizenship, the ability to engage with problems and issues, civility and respect, collaboration and working in teams, and caring.
Moral discernment may be interpreted to include judgment in ambiguous situations, academic integrity, ethical reasoning, ethical behavior, and the ability to act upon reflectively-held convictions.

These broad learning outcomes are achieved, not in the abstract, but in and through the exercise and development of certain specific practical competencies that are infused in these four outcomes of general education.

- Communicating effectively in writing in a variety of modes and settings
- Communicating effectively orally in a variety of modes and settings
- Analyzing observed natural phenomena through the use of scientific reasoning
- Reasoning quantitatively
- Integrating coherently diverse perspectives with knowledge
- Acting perceptively and responsibly in light of the education one has received

As required by the University’s accrediting body, general education programs at Mercer will constitute a minimum of 30 semester hours to include credit hours in humanities/ fine arts, social/ behavioral science, and science/mathematics.

General Education in the College of Liberal Arts

General Education in the College of Liberal Arts is built around five capacities that distinguish liberally-educated persons: (1) power of critical inquiry, (2) grasp of quantitative modes of knowledge, (3) competence in a foreign language, (4) skill in negotiating a wide variety of cultural and moral discourses, and (5) depth of reflective understanding.

These capacities are embodied in the three parts of the General Education Curriculum: the Core, the Two Tracks, and the Additional Depth Requirement.

I. THE CORE (21-32 hours)

All students take a selection of courses from among the following areas:

A. Critical Interdisciplinary Inquiry (14-15 hrs)

These interdisciplinary courses provide opportunities to develop critical capacities by addressing problems that require the integration of multiple ways of knowing. The courses address questions such as, “How do we read, write, think, analyze, question, and communicate critically about difficult problems to which no discipline has a complete answer?”

1. First-Year Seminar (8-9 hours)

<table>
<thead>
<tr>
<th>Core Course Options</th>
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<tbody>
<tr>
<td>FYS 101 or FYS-X 101</td>
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<td>FYS 102 or FYS-X 102</td>
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Each entering student must either successfully complete the First-Year Seminar or present evidence of equivalent course work at other universities. No AP or CLEP credit is applicable to this requirement. Students whose writing within FYS is deemed deficient may be required to enroll in ENG 108. For more information, see the section of the catalog on First-Year Seminar.
2. Scientific Inquiry (3 hours)

SCI 105

Scientific Inquiry introduces students to the human side of the empirical disciplines just as the First-Year Seminar introduces students to the humanities. For more information, see the section of the catalog on Scientific Inquiry.

3. Senior Capstone (3 hours)

SCP 450, 451, 453, 454, 455, 456, 457, 458, 459, 460

A Senior Capstone is a topical, multidisciplinary, integrative seminar that emphasizes questions of value and meaning. For more information, see the section of the catalog on Senior Capstone.

B. Mathematical and Scientific Modes of Knowledge (7-9 hrs)

These courses develop capacities for formal analysis and for scientific investigation of the natural world. These courses address questions such as, “What do mathematical analysis and physical measurement tell us about our world?”

1. Mathematics (3-4 hours)

MAT 104, 121, 126, 141, 191, or CSC 204

Students are encouraged to complete this requirement during their first year.

2. Laboratory Science (4-5 hours)

a. Disciplinary Introductions (4 hours)

BIO 211
CHM 111, 112, 115
EES 105, 110, 150
PHY 115, 141 and 121L, 161 and 121L

b. Topical Modules (4 hours)

BIO 105, 106
EES 103, 104
PHY 101, PHY/MUS 103
SCI 112

Students must take either one course from Section (a) or two courses from Section (b) provided that the two courses are in different disciplines (including different disciplines covered in different SCI 112 modules).

C. Foreign Language Competency (0-8 hours)

Since we live in an increasingly interconnected and interdependent world, every student must demonstrate mastery of the fundamental features of a foreign language.
This requirement can be fulfilled in any of the following ways:

1. Placement by exam into FRE, GER, LAT, SPN 251 or above.

2. Completion of the elementary 111-112 sequence in FRE, GER, GRK, LAT, or SPN so as to demonstrate mastery of fundamental features of a foreign language.

3. Students who are proficient in a language not offered at Mercer, and who wish to use it to satisfy this requirement must request permission in writing from the Chair of the Department of Foreign Languages and Literatures by the end of the fourth semester of enrollment and must submit appropriate written documentation of language proficiency from an institution recognized by the Department of Foreign Languages and Literatures.

II. THE TWO TRACKS (24 hours)

There are two ways to satisfy the next set of General Education requirements in the College of Liberal Arts. Students must complete either the prescribed sections of the Distribution track or fulfill the Great Books track.

Either way, these courses provide opportunities to develop capacities for critical reflection on one’s convictions and heritage. These courses address questions such as, “How do language, beliefs, values, and perceptions shape our desires, hopes, and judgments?”

A. The Great Books Track

The Great Books track consists of eight, three-credit hour courses. They address questions such as, “How do language beliefs, values, and perceptions shape our desires, hopes, and judgments?” by means of reading, discussing, and writing about a significant number of foundational texts that have shaped — and still describe — the western tradition.
Conversations are facilitated by faculty members drawn from many disciplines throughout the college. These small, seminar-style courses are designed to be taken in sequence for all four years of one’s college career. For more information, see the section of the catalog on Great Books.

GBK 101 Among Gods and Heroes  
GBK 202 Classical Cultures  
GBK 203 The Hebrew & Christian Traditions  
GBK 304 Order and Ingenuity  
GBK 305 The Modern Worldview  
GBK 306 Reason and Revolution  
GBK 407 The Age of Ambivalence  
GBK 495 Special Topics  

B. The Distribution Track

Courses in the distribution track address questions such as, “How do language beliefs, values, and perceptions shape our desires, hopes, and judgments?” in a more traditional manner by exposing students to different academic disciplines with their varied methods of inquiry. Students in this track choose courses as indicated below:

1. Persons, Groups, and Cultures
   a. Behavioral and Social Sciences  
      AFR 190  
      ANT 201  
      ECN 150, 151  
      PSY 101  
      SOC 101  
      POL 101, 253  
   b. Cultural Studies  
      COM 220  
      JMS 101, 240  
      PLS 200  
      PLS 210/SOC 210  
      WGS 180
   Students must take two courses from different disciplines in Group 1. At least one course must come from Section (a).

2. Biblical Traditions
   CHR 101, 150
   One course required. One additional course may be taken from this group. See note by Group 7.

3. History
   HIS 111, 112
   One course required. One additional course may be taken from this group. See note by Group 7.
4. Literature
   CLA 101, 102
   ENG 233, 234, 235, 236, 263, 264, 265
   FRE 303, 304
   GER 351, 352, 353
   LAT 300, 310, 320, 340, 350, 360, 370
   SPN 303, 304, 306, 310
   WLT 101

   One course required. One additional course may be taken from this group. See note by Group 7.

5. Philosophy
   PHI 180, 190, 195, 205, 220, 230, 240, 250, 260, 290
   GBK 202

   One course required. One additional course may be taken from this group. See note by Group 7.

6. Fine Arts
   JMS 220, 225
   THR 115, 218, 337
   MUS 104, 151
   Applied Music

   One course, or three hours of applied music, required. One additional course may be taken from this group. See note by Group 7.

7. Miscellaneous
   CHR 210, 335, 353, 356, 357
   ENG 237
   FRE, GER, or SPN 251, 252
   GBK 101
   GRK 251
   HIS 165
   LAT 251

   One course, or an additional course from Groups 2-6, or 3 hours of credit for introductory United States History by transfer or AP exam.

III. ADDITIONAL DEPTH OF UNDERSTANDING (minimum of 15 hours)

These courses promote depth of understanding outside the major and address the question, “How do we develop, criticize, and revise our understanding of complex issues and problems?”

This requirement can be fulfilled by earning a grade point average of 2.0 or higher in one of the following: (1) a second major in another department; (2) a minor in another department; (3) a second major or minor in the same department as the first major as long as no course at or above the 300 level in that department is used to satisfy more than one major or minor; (4) the courses required for a secondary teacher certification program as
described in the TIFT COLLEGE OF EDUCATION section of this catalog; (5) fifteen semester hours of credit in upper-level courses (at or above the 300 numbering) which are outside the student’s major department and are not already used to fulfill General Education requirements; or (6) a concentration instead of a major.

**Foreign Language Competency Requirement and Placement**

In order to fulfill the foreign language competency requirement, students may: (1) successfully complete an elementary sequence (FRE, GER, GRK, LAT, or SPN 111-112); (2) earn an acceptable score on the appropriate placement exam to place into FRE, GER, LAT, or SPN 251 or above; or (3) provide evidence of comparable competency in a language not taught at Mercer. The elementary language sequences (FRE, GER, GRK, LAT, SPN 111-112) are intended for students who qualify as novices in the respective languages (i.e., having less than two years of high-school level study).

Students who enter the College of Liberal Arts with a background of two or more years of French, German, Greek, Latin, or Spanish AND who wish to continue studying that language are required to take the foreign-language placement test during Orientation. This test will determine whether these students are placed in intermediate or elementary language study. The placement test may be taken only once, and the results are binding.

The prerequisite for enrollment in French, German, Greek, Latin, or Spanish 251 is the successful completion of either the placement test or the 112 course. Students who place into and successfully complete FLL 251 or above will receive four additional hours of credit towards graduation for the elementary sequence.

**First-Year Student Requirement**

During their first semester at Mercer University, all first-year students in the College of Liberal Arts are required to complete one of the following courses: The First-Year Student Experience (UNV 101) or an experiential section of the First-Year Seminar (FYS-X 101).

**Degree Programs**

A bachelor’s degree requires a minimum of 120 semester hours of academic courses numbered 100 and above. Many programs of study will require more. The College of Liberal Arts offers the following degree programs.

1. **Bachelor of Arts.**

2. **Bachelor of Science.** Students who complete the specified major requirements in biochemistry and molecular biology, biology, chemistry, computer science, earth and environmental sciences, information science and technology, mathematics, physics, or psychology will be awarded this degree.

3. **Bachelor of Science in Medicine or Bachelor of Science in Dentistry.** A three-year combination program that requires the completion of 90 hours in the College of Liberal Arts to include the general education requirements (excluding Senior Capstone), the admissions requirements for any accredited school of medicine or school of dentistry, and work toward any major offered in the College. The Bachelor of Science in Medicine or Bachelor of Science in Dentistry will be awarded upon successful completion of one year (32 semester hours) of work in an accredited medical or dental school. Students who have been awarded a Bachelor of Arts or Bachelor of Science degree are not eligible for these degrees.

4. **Bachelor of Science in Health Science.** A three-year combination program that requires the completion of 90 hours in the College of Liberal Arts to include the gen-
eral education requires (excluding Senior Capstone), the admissions requirements for any accredited pharmacy or physician’s assistant program, and work toward any major offered in the College. The Bachelor of Science in Health Science will be awarded upon successful completion of one year (32 semester hours) of work in an accredited Masters of Medical Science/Physician’s Assistant or Doctor of Pharmacy program. Students who have been awarded a Bachelor of Arts or Bachelor of Science degree are not eligible for this degree.

5. **Bachelor of Science in Medical Technology.** A three-year combination program that requires the completion of 90 hours in the college to include the general education requirements (excluding the Senior Capstone) and the requirements of any NAACLS approved School of Medical Technology. A student must complete 16 hours acceptable toward a major in chemistry, 17 hours acceptable toward a major in biology, 4 hours in precalculus and 3 hours of statistics. The Bachelor of Science in Medical Technology will be awarded upon completion of an approved twelve-month program in medical technology.

**Undergraduate Degree Requirements**

The policies that apply to all undergraduate degrees are found in the “Academic Information” section at the front of this catalog.

**Statement on Student Responsibility:** Each student bears responsibility for knowing the requirements for the degree and for meeting these requirements. Students should review with their advisor or department chair every semester their progress toward meeting graduation requirements.

**Requirements for Majors, Concentrations, and Minors**

Each candidate for graduation must complete a group of courses known as a major or concentration. A major is a focused and disciplined investigation of a certain subject. A concentration is equivalent to a major and a minor. The upper-division program that constitutes the major or concentration must be planned in conference between the student and the advisor or chair of the major department. Students may not formally declare a major until they have earned at least 30 semester hours, whether through course work or by examination. Before earning 65 credit hours students must formally declare an academic major or concentration by submitting the appropriate forms to the Office of the Registrar. Otherwise, they will not be permitted to register for courses until they have declared a major. Transfer students must formally declare a major before earning 65 semester credit hours, or before the end of the first semester of enrollment if they are awarded more than 65 hours of transfer credit.

Students may qualify for a second major, provided major requirements are met in full. In addition to the major, a student may wish to complete a group of courses known as a minor. The Additional Depth Requirement described earlier in this catalog lists certain restrictions on minors and double majors. The department course offerings described later in this catalog state the specific requirements for each major and minor offered by the College of Liberal Arts.

The traditional major consists of a minimum of 27 semester hours; at least 15 must be upper division work, and at least 12 hours at the upper division level must be completed at Mercer. The traditional minor consists of between 15 and 18 semester hours; at least 6 must be upper division work, and at least 6 hours at the upper division level must be completed at Mercer. Normally, credit toward graduation will not be given for more than 45 semester hours in any one subject area.
Each degree applicant must have an overall C (2.0) average in all courses taken to satisfy the requirements of the major, the concentration, and additional depth. The student may be required, at the discretion of the major department, to pass satisfactorily a comprehensive examination in the major field.

**Majors, Minors and Concentrations**

Students in the College of Liberal Arts achieve depth of understanding by completing majors or concentrations in the following subjects. (All major programs lead to the Bachelor of Arts degree unless otherwise noted. See also the section on the Individualized Major or Minor Program.)

1. Africana Studies
2. Art
3. Biochemistry and Molecular Biology (concentration; B.S.)
4. Biology (B.A. or B.S.)
5. Chemistry (B.S.)
6. Christianity
7. Classical Studies (concentration)
8. Communication Studies
9. Computer Science (B.A. or B.S. or B.S. in Computational Science)
10. Earth and Environmental Sciences (B.S.) or Studies (B.A.)
11. Economics
12. English
13. French
14. German
15. History
16. Information Science and Technology (B.A. or B.S.)
17. International Affairs (concentration)
18. Journalism
19. Latin
20. Mathematics (B.A. or B.S.)
21. Media Studies
22. Philosophy
23. Physics (B.A. or B.S.)
24. Political Science
25. Program in Leadership and Community Service (concentration)
26. Psychology (B.A. or B.S.)
27. Sociology
28. Southern Studies (concentration)
29. Spanish
30. Theatre
31. Women's and Gender Studies

Minors are offered in each of the major subjects listed above (but not in the concentration areas). Minors are also offered in the following subjects:

1. Anthropology
2. Criminal Justice
3. Military Science
4. Photography

Students in the College of Liberal Arts may also complete minors offered by the other undergraduate schools on the Macon campus. The Stetson School of Business and Economics offers minors in accounting, business administration, and economics for students not enrolled in that school. The requirements for these minors are described in the Stetson School of Business and Economics section of this catalog. The School of Engineering offers minors in manufacturing and in technical communication for students not enrolled in that school. The requirements for these minors are described in the School of Engineering section of this catalog. The Tift College of Education offers a minor in teacher education for students not enrolled in that college. The requirements are described in the Tift College of Education section of this catalog. The Townsend School of Music offers a
minor in music for students not enrolled in that school. The requirements are described in the Townsend School of Music section of this catalog.

**Individualized Major or Minor Program**

*Purpose of an Individualized Major or Minor:* The individualized major or minor program meets the needs of students who evince clarity of purpose and unique interests in their personal educational program which cannot be accommodated within the traditionally prescribed (usually departmental) major or minor formats. By providing increased opportunity to these students to pursue their special interests both on and off the residential campus while meeting the requirements for completing a major or minor, it is hoped that Mercer students will not be forced to transfer to other institutions in order to meet their academic needs (and desires) in liberal arts and pre-professional training.

*Description of the Individualized Major or Minor:* The individualized major or minor is a program in which students may propose a major or minor study curriculum tailored to their individual needs.

*Eligibility:* In order to be eligible for the individualized major or minor, a student must have completed at least 30 semester hours and no more than 80 semester hours of college level work with a grade point average of at least 2.0 and at least 15 semester hours completed at Mercer University.

*Student Responsibility:* For the major, the student must choose a committee composed of three members of the faculty from the departments in which courses are taken, no more than two of whom are in the same department, subject to the approval of the Office of the Dean. For the minor, the student must choose a committee composed of two members of the faculty, subject to the approval of the Office of the Dean. If the minor program involves courses from more than one department, the committee must consist of the chair of the department in which the most courses are taken and one member from another department in which courses are taken. After the committee is selected, but before any committee action takes place, the student must submit to the committee members a written statement describing the proposed major or minor program, clearing stating the educational goals.

*Faculty Responsibility:* Faculty members may accept service on committees for individualized majors or minors at their discretion; however, under no circumstances may they serve on more than eight such committees during a given semester.

*Curriculum:* The individualized major curriculum may be created from the regular course offerings of Mercer University or courses to be taken at other accredited institutions with a maximum off-campus limit of 20 semester hours, of which 12 semester hours may be credited toward a major and 6 semester hours may be considered related work. The total program of courses must be planned and approved by the committee in advance of its submission to the Office of the Dean for final approval. A copy of the approved document is then sent to the Office of the Registrar along with a completed declaration of major form.

The individualized minor program must be created from the regular course offerings of Mercer University courses and must consist of at least 18 semester hours. At least 12 semester hours must be in upper division courses. Up to 6 semester hours of work may be transferred from another accredited institution, provided they are equivalent to regular Mercer University courses.

Courses counted toward an individualized major or minor may not be counted toward another major or minor, unless the additional depth requirement has already been satisfied.

*Independent Research Projects:* As part of the individualized major, students may pursue independent projects, either on or off campus, which afford genuine learning opportunities. These projects shall carry a maximum of 6 semester hours credit and must culminate in a major research paper. Independent projects pursued off campus will be consid-
ered part of the 20 semester hours of off-campus coursework allowed in the individualized major curriculum.

Comprehensive Examination: A local comprehensive examination may be administered at the completion of the major program.

Financial Obligations: Students who take courses at other institutions must meet all admission requirements and must expect to personally assume the financial obligations.

Credit by Examination

Full-time students who have gained knowledge of the content of courses through independent study or experience may, with the approval of the appropriate department and the Associate Dean of the College, receive credit by special examination. Credit may not be earned for a seminar, a practicum, or an independent study or research course; nor may a student be examined on a course for which he or she has previously registered for credit or as an auditor. Credit by examination may not be used to fulfill the laboratory science requirement in general education. A student may receive no more than 32 hours of credit from all extra-course examinations including Advanced Placement, CLEP, and the International Baccalaureate Program.

Students should consult the appropriate department well in advance of the anticipated examination. Professors will advise students of course requirements and standards but are under no obligation to provide additional help. Credit by examination for a course may be attempted only twice. In all cases, credit must be attained before the last semester or last full summer session in residence. Information on fees and other aspects of credit by examination is found in the Academic Information section of this catalog.

Satisfactory/Unsatisfactory Grading Option

Any student (regardless of cumulative grade point average or year at Mercer) is permitted to take two courses per academic year on a S/U basis with the following restriction:

1. From the courses listed in the general education requirements that are applicable to a student's major, minor, or concentration (including required courses in related fields) that student may take no more than two courses on a S/U basis. Courses that are offered only on the S/U basis will not count toward the allowable two per year.

2. Other than the exception mentioned above, no course that counts toward a major, minor, or concentration can be taken on a S/U basis.

Special Course Sections

The College of Liberal Arts supports two types of instructional options that offer students opportunities for broader learning experiences: linked-course sections and service-learning sections.

Linked-course sections are pairs of courses for which students co-enroll and in which the instructors work together closely to emphasize interdisciplinary connections. This intentional curricular linkage requires that students co-register for both sections in a linked pair.

Service-learning sections are courses in which students commit to working at off-campus community-service sites in addition to completing the in-class course requirements. Through required co-registration in a service-learning course (SRV 199), students in service-learning sections earn semester hours of credit for their additional coursework commitment.

In a semester, certain sections of any College of Liberal Arts courses might be designated as linked-course sections or as service-learning sections, at the option of the instructor. The specially designated sections will be identified in the course schedules, and stu-
dents should be aware that these sections will deviate from the course descriptions in this catalog in ways consistent with their special designations.

Course Frequencies

The course descriptions in the following sections include the approximate frequencies at which these courses are offered (e.g. every semester, every year, etc.). The frequencies listed in this catalog are approximations and are not guarantees. While the listed frequencies might be useful aids for planning, all students should communicate with academic advisors frequently and should register for courses based on the most current schedule of course offerings posted by the Registrar’s Office.

ACCOUNTING (ACC)

For description of the courses offered in this area, and of the requirements for the minor (for Liberal Arts majors), see the Section, EUGENE W. STETSON SCHOOL OF BUSINESS AND ECONOMICS, in this catalog.

AFRICANA STUDIES (AFR)

Chester J. Fontenot, Director/Professor
Robert J. Hargrove, Professor
Gregory Domin, Sarah Gardner and Robert Good, Associate Professors
Tia Gafford-Williams, Assistant Professor

Africana Studies provides an opportunity for students to study the legacy of Africa and the African Diaspora and to explore other issues concerning race and class.

A major in Africana Studies consists of 27 semester hours, including AFR 190 (prerequisite for all other AFR courses), 230, 324, 359 or 360, 363, 495, and at least two additional courses numbered 300 or above. All majors are required to complete AFR 495 with a minimum grade of C. A minor in Africana Studies consists of 15 hours, including AFR 190, 363, and at least one other AFR course numbered above 300.

Majors may earn Honors in Africana Studies by fulfilling the following requirements: a) attain a grade point average of 3.50 in the major, b) complete a research thesis under the direction of an Honors advisor, and c) have this thesis approved by a faculty committee consisting of three instructors who are formally affiliated with the Africana Studies Program.

AFR 190. Introduction to African American Studies (3 hours)
Prerequisite: one semester of FYS or the equivalent.
This course is designed to help students understand the academic models, approaches and methodologies that characterize African American Studies. In this course, students will become aware of how the African American experience has been defined and researched from an interdisciplinary perspective including literature, religion, sociology, anthropology, psychology, education, folklore, science and music. This course is required for the Africana Studies major and minor. (Every year)

AFR 210. Civil Rights and the Black American (3 hours)
The development of civil rights of black Americans from slavery to the present. Consideration will be given to political, social, economic, and philosophical forces that shaped federal and state law and to the legal doctrine embodied in various judicial decisions and legislation in such areas as education, voting, unemployment, and public facilities. The characteristics of the legislative and judicial processes will also receive attention. (Occasional)
AFR 230. Religion and the American Black Experience (3 hours)
A consideration of traditional Christian, secularized, and other religious manifestations of black culture in America, with emphasis upon the modern period. (Every year)

AFR 295. Social Inequality: Ethnic Minorities (3 hours)
(Same as SOC 295)
Prerequisite: one semester of FYS or the equivalent.
This course is designed to help students understand the theoretical base for the social inequalities that manifest themselves among the ethnic minority groups in America. In this course, students will become aware of the nature of social differences in American society and investigate a number of current theories that examine the basis for these differences. (Every two years)

AFR 300. Special Topics in Africana Studies (3 hours)
Prerequisite: AFR 190.
A study of some significant topic not available through other departmental course offerings. Topics will be announced in advance. Students may take this course no more than twice for credit. (Every year)

AFR 310. Race, Gender and Media (3 hours)
(same as JMS 310 and WGS 310)
This course will critically examine the role of the media in enabling, facilitating, or challenging the social constructions of race and gender in our society. We will consider the mass media to be one among many other social institutions such as religion, education, and family, which strongly influence our everyday notions of race and gender. The course will address a variety of entertainment and news content in print and electronic media. (Every other year)

AFR 324. Sub-Saharan Africa to Independence (3 hours)
(Same as HIS 324)
A study of sub-Saharan Africa before and during imperialism, with an emphasis on social and cultural history. Literature, anthropology, and sociology are used to examine the effects of European rule on African cultures. (Every two years)

AFR 330. Race and Politics (3 hours)
(Same as POL 330)
This course explores the unique political experiences of racial minorities with particular emphasis on both traditional (e.g., voting, office holding, and lobbying) and non-traditional (e.g., riots/protests, music, mass movements) efforts to gain political stamina. The course will focus on the quality of minority political leadership, ideology, participation, representation, and strategies for empowerment. (Every two years)

AFR 345. Environmental Justice (3 hours)
(Same as EES/POL/SOC 345)
This course examines the impact of institutional racism on environmental and health policies, industrial practices, government regulations and rule making, enforcement, and overall quality of life in people-of-color communities. The course will examine the nexus between environmental protection and civil rights, and the impact of the environmental justice national environmental groups. (Every two years)

AFR 351. Black Philosophical Perspective (3 hours)
An examination of the ideas and influence of black thinkers and leaders throughout the world. Writings of such figures as Fanon, Carmichael, Garvey, Nkrumah, King, Booker T. Washington, Dubois, Malcolm X, and Douglass will be compared and contrasted. (Occasional)
AFR 356. The Civil War and Reconstruction (3 hours)  
(Same as HIS 356)  
The causes of the Civil War, the problems of the nation in wartime, and an inquiry into new interpretations of Reconstruction history. (Every two years)

AFR 359. African American Literature: Beginnings to 1965 (3 hours)  
(Same as ENG 359)  
A survey of classic writings in African American literature presented in their historical contexts. The course includes essays analyzing the political and social status of African Americans at various points during the period and representative works by major poets and fiction writers. Reading lists vary from year to year, but generally include such authors as Brown, Chestnut, Harper, the Grimkes, Larsen, Bontemps, DuBois, Washington, Harlem Renaissance writers, Ellison, and writers of the early civil rights era. (Every year)

AFR 360. African American Literature: 1965 to Present (3 hours)  
(Same as ENG 360)  
A chronological study of the development of African American literature since 1965. The course attempts to place African American literature in the context of world and American literature by examining prevalent themes and traditions as presented in fiction, poetry, and drama. Reading lists vary from year to year, but generally include such authors as Wright, Baldwin, Morrison, Angelou, Sanchez, Baraka, McMillan, Walker, and Wideman. (Every year)

AFR 361. The Old South (3 hours)  
(Same as HIS 361)  
The development of Southern culture, with emphasis on the social, economic, and cultural life. Some attention is given to political problems. (Every two years)

AFR 362. The New South (3 hours)  
(Same as HIS 362)  
The South from Reconstruction to the present, with emphasis on the New South movement, agrarian unrest, and the impact of liberalism in the twentieth century. (Every two years)

AFR 363. African American History (3 hours)  
(Same as HIS 363)  
An overview of the African American experience with emphasis on the following topics: African heritage; life under slavery; conditions among free blacks during the antebellum period; actions of blacks during the Civil War and Reconstruction and reactions to the rise of virulent white racism after Reconstruction; and the roots, achievements, and transformation of the civil rights movement. (Every two years)

AFR 389. The Black Woman (3 hours)  
(Same as WGS 389)  
An historical and literary examination of the black woman and her role in American culture. (Every two years)

AFR 490. Supervised Practical Research: A Field Project (3 hours)  
This course requires that the advanced student attempt to solve a limited problem in human relations by use of knowledge gained in course-work and by employment of existing community resources and agencies. (Occasional)

AFR 495. Senior Seminar in Africana Studies (3 hours)  
A course designed to fulfill the exit requirement for students majoring in Africana Studies. Open as well to AFR minors and other students with senior standing in the College of Liberal Arts. Emphasizing supervised research projects, this seminar enables students to compare methodologies and perspectives, to examine specific problems in Africana
Studies, and to sharpen their skills as researchers and writers. This course is required for the Africana Studies major. (Every year)

**ANTHROPOLOGY (ANT)**

For description of the program of study in this area, the requirements for the minor, and of the courses offered, see the heading SOCIOLOGY in this catalog.

**ART (ART), INCLUDING PHOTOGRAPHY (PHO)**

Roger Allen Jamison, Chair/Professor
Gary Lee Blackburn and Beth Ellen Stewart, Professors
Craig Coleman and Samuel Lamar Hutto, Associate Professors

The Art Department offers courses and programs to meet the needs of:

1. Students planning to follow graduate or professional programs in studio art or art history. Related fields requiring a strong art background are archaeology, commercial art, medical illustration, industrial design, interior design, display, packaging, filmmaking, museum direction, and gallery operation. Students planning to attend graduate school in studio art may need to design an individualized major.

2. Students seeking some knowledge and appreciation of the visual arts, and those who want an avocational experience in the creative arts or crafts. Courses without prerequisites are available for the non-major in painting, ceramics, crafts, printmaking, and sculpture as well as art history.

The Department of Art offers a major with an emphasis in either studio art or art history.

The minimum requirements for an art major, studio emphasis, are ART 106, 107, 115, 116, 350, 367, 475, two courses from ART 203, 223, 224, 225, 226, 254, and one course from ART 351, 352, 353, 354, or 355. Fifteen hours must come from courses numbered 300 or above. The minimum requirements for an art major, art history emphasis, are ART 106, 107, 116, 367, 475; three courses from ART 362, 363, 365, 366, 368, 370; and two courses from ART 114, 115, 203, 223, 224, 225, 226, 254, 350. Fifteen hours must come from courses numbered 300 or above.

A major project, consisting of a graduation exhibition for the studio emphasis or a research paper for the art history emphasis, is required of each major in art and will be undertaken during the senior year in addition to regular class work. The major project must be of sufficient quality to merit the approval of the art faculty; lacking this, the student may be required to continue work in the Art Department until his/her project is satisfactory. Full tuition will be charged for any semester of such extra work.

With the consent of the student, the art faculty may make a selection of outstanding work from the graduation exhibition to be retained as a part of the permanent collection of the University without compensation to the student. Any art work may be retained for exhibition over a period not to exceed two years.

A minor in art consists of fifteen hours, to include one course from ART 106, 107; one course from ART 115, 116; and three art electives, two of which must come from courses numbered 300 or above.

Majors may attain Departmental Honors by fulfilling the following requirements: (1) earn an overall grade point average of 3.50; (2) earn a 3.50 grade point average in all art courses; (3) complete with distinction a major project consisting of a graduation exhibition or a research paper during the senior year.
ART 106. History of Art I (3 hours)
A survey of the major works of visual art and architecture from prehistoric times to the late Middle Ages in Europe. An investigation of how changes in subject matter and style reflect the power structures, ideals, philosophy, religion, scientific ideas, and literature of cultures that have contributed to the Western tradition. This course can be part of the Classical Studies concentration. (Every year)

ART 107. History of Art II (3 hours)
A survey of the major works of painting, sculpture, and architecture from the beginning of the Renaissance to the end of the nineteenth century. Attention is given to the changing role of the artist in the Western tradition and how styles in art relate to social, political, philosophical, religious, and scientific ideas. (Every year)

ART 114. Art Methods and Materials (3 hours)
A practical course that explores the tools, materials, and processes used in sculpture, painting, ceramics, printmaking, and photography; their use and historical development will be stressed over the making of finished art work. (Every two years)

ART 115. Drawing Fundamentals (3 hours)
An introductory course with emphasis on basic drawing skills and idea development. Composition, perspective, line, value, and drawing technique will be explored through the use of a variety of drawing media. (Every semester)

ART 116. Fundamentals of Design and Color (3 hours)
An introductory course in two dimensional design concepts and color theory. Projects in a variety of media are used to investigate the properties and uses of color and to solve problems in two dimensional design. (Every semester)

ART 116C. Fundamentals of Design and Color (3 hours)
This course is identical to ART 116, with the exception that it is taught using computer-based media. (Every year)

ART 202. Intermediate Drawing (3 hours)
Prerequisite: ART 115 or consent of the instructor.
An advanced course in drawing, stressing an individual approach to specific problems. Attention will be given to style development and presentation of finished work. (Occasional)

ART 203. Introduction to Crafts (3 hours)
Development of a philosophy of craft experience, using production as the basis of a materials sense. Honest workmanship, sincere utilization of substances, original design, and technical competence are stressed. (Occasional)

ART 223. Ceramics (3 hours)
Construction and decoration of stoneware pottery and small sculptures with an introduction to three dimensional design. Coil, slab, and wheel methods; firing and glazing. (Every semester)

ART 224. Sculpture (3 hours)
Basic three-dimensional design, modeling in clay, and carving in wood or stone. Preliminary models are developed into final sculptures. (Every semester)

ART 225. Painting (3 hours)
An introductory course in painting that explores pictorial composition through a variety of media. Completion of ART 115 and 116 prior to enrollment is recommended. (Every year)
ART 226. Printmaking (3 hours)
Instruction in the creation of relief and intaglio prints (wood + linocuts, etching & aquatint, monotypes, collagraphs). It is highly recommended that students complete ART 115 or have some drawing skills before taking printmaking. (Every year)

ART 254. Beginning Digital Imaging (3 hours)
An introductory-level course focusing on the use of computers as aids in designing artwork and as mediums for creative work. This course includes an introduction to the concepts of using new media and how it relates to contemporary art theory and practice. Work created will be produced for print media, interactivity, and motion. This will culminate in the creation of a digital portfolio. (Every year)

ART 350. Life Drawing (3 hours)
Prerequisite: ART 115 or consent of instructor.
A study of the human figure from life and anatomical models in charcoal, pen and ink, and other graphic media. (Every year)

ART 351. Advanced Sculpture (3 hours)
Prerequisite: ART 224 or consent of instructor.
Instruction in figure modeling, carving and casting, as well as the use of new materials. Pneumatic equipment for stone and wood carving are utilized. (Every two years)

ART 352. Advanced Painting (3 hours)
Prerequisite: ART 225 or consent of instructor.
Wide latitude is given in the choice of painting media, problems, and techniques, encouraging individual creative expression. (Every two years)

ART 353. Advanced Ceramics (3 hours)
Prerequisite: ART 223 or consent of instructor.
Instruction in wheel-thrown and slab-built pottery and sculpture. Glaze theory and formulation, historical topics, and alternative methods for firing, glazing, and surface treatment of ceramics are investigated. (Every two years)

ART 354. Digital Imaging (3 hours)
Prerequisite: ART 254.
An advanced level course teaching the use of the computer as an aid in designing art work and as a medium for creative work. (Every year)

ART 355. Watercolor (3 hours)
Prerequisite: ART 115 or consent of the instructor.
A painting course in which the medium of transparent watercolor is used to explore a wide range of subjects. Much of the work for the class will be done on location. (Every year)

ART 362. Ancient Art (3 hours)
A study of selected themes from the arts of Greece and Rome, and archeological and art historical techniques for dating, attributing, and interpreting works of art. This course can be part of the Classical Studies concentration. (Every three years)

ART 363. Art of the Middle Ages (3 hours)
A survey of the major works of art and architecture from the end of the Roman Empire to the late Gothic period. Early Christian, Byzantine, Northern early medieval styles, and the Romanesque and Gothic art of the High Middle Ages (and some of the music) are related to the life and beliefs of the times. This course can be part of the Classical Studies concentration. (Every three years)
ART 365. The Italian Renaissance (3 hours)
An in-depth look at the art, artists, and patrons who created the perspectival figurative tradition that still shapes our visual world. New materials and techniques, training, patronage, and theoretical ideas about art and artists are some of the topics covered. (Every three years)

ART 366. Baroque Age (3 hours)
The art and architecture of the 17th and 18th Centuries provide the material to explore the aesthetic and thematic idea of the Western world. (Every three years)

ART 367. Modern Art History (3 hours)
A study of the aesthetic, philosophical, technological and sometimes political ideas behind many of the movements of 19th- and 20th-Century art such as Romanticism, Realism, Impressionism, Expressionism, Cubism, and Surrealism, and how they led to the art of today. (Every three years)

ART 368. Far Eastern Art (3 hours)
The arts of the Far East, primarily those of India, China, and Japan are studied in relation to their religious and political history. (Every three years)

ART 370. Women in Art (3 hours)
(Same as WGS 370)
A consideration of the contributions of women in the field of art and the social context in which they have worked, as well as the depiction of women in works of art to discover the criteria by which we judge works of art (and artists) and how visual images can reinforce or change our sense of reality, such as assumptions about gender roles. (Every three years)

ART 380. Special Arts Subjects (Subtitle) (3 hours)
Prerequisite: consent of instructor.
A study of some significant area not otherwise covered in credit offerings. May be repeated for a maximum of 6 hours credit. (Occasional)

ART 470. Gallery Internship (1 hour)
Prerequisite: a declared art major or permission of the instructor.
Students learn the general operation and management of a gallery and exhibition planning and presentation. Students propose, design, hang exhibitions; write and publish catalogs and publicity; read and discuss articles on theory of exhibitions; act as docents for student groups as well as possibly doing volunteer work for local museums. Graded S/U May be repeated for a maximum of 2 hours credit. (Occasional)

ART 475. Problems in Art Criticism (3 hours)
Prerequisites: ART 367 and senior status, or consent of the instructor.
An investigation of the origins, nature, and functions of the visual arts to develop criteria of aesthetic judgment. (Every year)

ART 490. Directed Independent Study (1-3 hours)
Prerequisites: consent of instructor and chair.
An advanced course in art theory, practice, or research may be designed for a student who evidences clarity of purpose and unusual ability in art. (This course may complement but not replace or duplicate the major project.) May be taken for variable credit of 1-3 hours, one hour of credit for each three hours of studio work per week. May be repeated for a maximum of 6 hours credit. (Occasional)
PHOTOGRAPHY (PHO)

A minor in photography consists of five courses: PHO 230, 330, 425, and two courses from ART 116, 254, 367, or JMS 101. Photography courses will not count toward a major in art.

PHO 230. The Art of Photography: Pinhole (3 hours)
An introduction to the history, theory and practice of photography. The special qualities of photography as an art and as an expressive tool are illustrated through a unique blend of pinhole cameras and digital printing. Students will learn the functions and physics of optics by building and using pinhole cameras. Printing of pinhole negatives will be done using digital software and printers. (Every semester)

PHO 330. Black and White Film Photography (3 hours)
Prerequisite: PHO 230.
This course involves the melding of the art and science of photography in picture making, developing, and enlarging. Darkroom techniques are emphasized, including creative approaches to printing and manipulation of the image. Special assignments are centered on subject matter and techniques. (Students must supply their own manual exposure camera.) (Every two years)

PHO 425. Digital Photography (3 hours)
Prerequisite: PHO 230 or permission of the instructor
This course covers the creation of photographic images using digital media. The differences between film and digital photography will be explored. Topics covered will include the use of digital cameras and the transfer, storage, adjustment and printing of digital files. (Students must provide their own digital camera of at least four megapixels.) (Every two years)

PHO 498. Directed Independent Study (1-3 hours)
Prerequisite: consent of the instructor and chair.
An advanced course in the theory or practice of photography, designed by the student. The course can be repeated for a total of six hours credit. (Occasional)

BIOCHEMISTRY AND MOLECULAR BIOLOGY

The Departments of Biology and Chemistry collaboratively offer the concentration in Biochemistry and Molecular Biology as an academic focus opportunity for students at the interface where biology and chemistry overlap. Biologists and chemists come together to explore life at the cellular and molecular level by applying the molecular concepts of chemistry to the complex processes that exist within living biological systems. This program is designed to prepare students for advanced study in the biological sciences; for professional study in a health field; or for a career in science or science education. For details on the courses listed below, please see the BIOLOGY and CHEMISTRY headings in this catalog.

The Bachelor of Science degree with a concentration in Biochemistry and Molecular Biology consists of the following required courses: CHM 111 and 112 (or CHM 115), CHM 221, 222, 241, and 332; BIO 211, 212, 310, 460, 460L, and one biology elective; BIO/CHM 465, 465L; and either BIO 410 or BIO/CHM 466, 466L. The biology elective must be one of the following: BIO 303, 325, 330, 450, an approved BIO 490, at least three hours in BIO 499, or CHM 401 and 402. Courses required in departments other than Biology or Chemistry are MAT 191, MAT 192, and PHY 161 with PHY 121L. These ancillary courses are often prerequisites to others in Biology and Chemistry. Successful completion of a senior comprehensive examination in Biology or Chemistry is required. Currently, each department uses the Major Field Achievement Test for this purpose.
Students may attain honors in Biochemistry and Molecular Biology by fulfilling the following requirements: (1) select an honors faculty advisor in either Biology or Chemistry by the end of the semester in which one accumulates 90 semester credit hours, and keep this advisor informed of progress toward satisfying the honors requirements; (2) complete the concentration in Biochemistry and Molecular Biology with grade point averages of 3.50 or above in biology and chemistry courses and of 3.25 or above overall; (3) complete at least 4 semester hours of research (CHM 401 and 402 or BIO 499) with a grade point average of 3.00 or above; and (4) write a research paper of publishable quality on an approved topic, using the format of a peer-reviewed journal chosen by the honors advisor.

**BIOLOGY (BIO)**

Mary Crecink Kot, *Chair/Professor*
Thomas Alan Huber, *Professor*
Linda L. Hensel, Michael Keith Moore, and Alan F. Smith, *Associate Professors*
David P. Aiello, Heather Bowman Cutway, Craig D. Byron and Kevin M. Drace, *Assistant Professors*

The curriculum of the Biology Department is designed:

1. to increase the student's understanding of the unifying principles and subject content of biology;
2. to develop the student's basic skills in critical thinking, problem solving, communication, computer use, and library and laboratory research;
3. to introduce students to the personal, social, and ethical aspects of biology;
4. to emphasize the role of liberal education in enhancing personal and professional development; and
5. to assure that students have the background experiences necessary to pursue graduate education, professional studies, or employment.

The Department of Biology offers two majors and contributes to the concentration in Biochemistry and Molecular Biology (for details, see BIOCHEMISTRY AND MOLECULAR BIOLOGY heading in this catalog.)

A. The Bachelor of Science degree in biology requires these biology courses, totaling at least 36 semester hours: BIO 211 and 212 and at least 26 hours in biology courses numbered above 212. The major courses must include BIO 310 and BIO 370; one course from BIO 300, 301, or 302; and at least one 400-level laboratory course. The remaining biology courses will be selected in consultation with the major advisor and will be directed toward the student's educational and professional goals. Several biology courses are offered in alternate years or less often, so careful planning is important. At least 15 hours in biology must be in courses numbered 300 or above. Courses required in departments other than biology include MAT 133; CHM 111, 112, 221, and 222; and PHY 141 AND 121L or 161 AND 121L. Additional courses in mathematics (MAT 141 or 191), chemistry, physics, or computer science are often strongly recommended or necessary for students wishing to pursue graduate work in biology or for preparation for professional study, such as medical school. Students interested in graduate work or professional school should seek appropriate advisement early in their careers to plan carefully for these additional courses. Successful completion of a senior comprehensive examination is required. Currently, the Department uses the Major Field Achievement Test for this purpose.
B. The Bachelor of Arts degree in biology requires these biology courses totaling at least 36 semester hours: BIO 211 and 212 and at least 26 hours in biology courses numbered above 212. The major courses must include BIO 310 and BIO 370; one course from BIO 300, 301, or 302; and at least one 400-level laboratory course. The remaining biology courses will be selected in consultation with the major advisor and will be directed toward the student's educational and professional goals. Several biology courses are offered in alternate years or less often, so careful planning is important. At least 15 hours in biology must be in courses numbered 300 or above. Courses required in departments other than biology include MAT 133; CHM 111 and 112. Students are advised that a Bachelor of Arts major in biology is usually not appropriate for those interested in graduate work in biology, professional school, or industry positions. Successful completion of a senior comprehensive examination is required. Currently, the Department uses the Major Field Achievement Test for this purpose.

Minors in biology must take at least 17 semester hours, to include BIO 211 and 212. At least seven hours must be in courses numbered 300 or above. Only one non-laboratory course can count in the minor.

A biology major may earn departmental honors by fulfilling the following requirements:
(1) apply to the department for appointment of an honors advisor at the end of the semester in which she or he accumulates 75 hours of credit, including 21 hours in biology; (2) graduate with a B.S. or B.A. in biology with a grade point average of at least 3.50 in biology and 3.25 overall; (3) in consultation with the honors advisor: (a) devise and carry out a field or laboratory research project, or (b) produce a museum-quality biology exhibit; (4) prepare a paper describing the honors project using an acceptable biological journal format; (5) present a seminar to students and faculty in the Department, describing the honors project; and (6) receive departmental approval upon completion of the project.

Secondary Teacher Certification Program in Biology

Teacher certification in biology (6-12) is available to biology majors who complete BIO 390 (Environmental Health and Toxicology) and PHY 141, 121L, 142, and 142L. Students planning to teach biology in secondary schools should notify their advisor and contact the secondary education advisor in Tift College of Education. Required courses in education include EDUC 210, 220, 256, 283, 357, 398, 399, 406, 423, 469, 476, 485, and 492. Please consult the TIFT COLLEGE OF EDUCATION section of this catalog for more details. Georgia Professional Standards Commission approval of this new certification option is pending.

BIO 105. Human Genetics and DNA Technology (2 hours)
Prerequisite: SCI 105.
This eight-week science laboratory module will focus on classic and modern genetics using the human organism as the research model. Development of the field's major concepts will be examined from an historical perspective in which students will analyze and interpret the classic experiments of the pioneering geneticists. Laboratory exercises will emphasize current techniques in molecular biology and will be complemented by class discussions of related bioethical issues. A lecture and laboratory course. (Occasional)

BIO 106. Piedmont Natural History (2 hours)
Prerequisite: SCI 105.
This eight-week science laboratory module is a study of the natural history of the Piedmont physiographic province. This course provides an introduction to the biological and geologi-
cal processes that have led to the development of the unique ecosystems found in the Piedmont. Field identification and experimentation with organisms that inhabit this region are emphasized. Students are required to arrange transportation to off-campus locations each week for the duration of the course. A lecture, laboratory, and field course. (Occasional)

**BIO 202. Human Anatomy and Physiology I**  (4 hours)
This course represents an introduction to the structure and function of the human body from the cellular to the organismal levels. Subjects include tissue and integumentary, skeletal muscular and nervous body systems. This course may not be used for a biology major or minor. It is not recommended for pre-medical students. A lecture and laboratory course. (Every year)

**BIO 203. Human Anatomy and Physiology II**  (4 hours)
Prerequisite: BIO 202
This course continues the introduction to the structure and function of the human body from the cellular to the organismal levels. Subjects include the endocrine, cardiovascular, lymphatic, immune, respiratory, digestive, urinary and reproductive systems. This course may not be used toward a biology major or minor. It is not recommended for pre-medical students. A lecture and laboratory course. (Every year)

**BIO 205. Introduction to Biology for Biomedical Engineers**  (4 hours)
Prerequisites: MAT 133 and CHM 112 or CHM 115.
An introduction to selected principles of the biological sciences for biomedical engineering students. Subjects include bioenergetics, biochemistry, physiology, genetics, cell biology, and physiology and homeostasis. The course may not be used for a biology major or minor. This course is not recommended for pre-medical students. A lecture and laboratory course. (Occasional)

**BIO 211. Introduction to Biology I**  (5 hours)
Pre- or corequisite: CHM 112 or CHM 115
An introduction to the unifying principles of the biological sciences. Subjects include evolution, systematics, biodiversity, animal form and function, homeostasis, and ecology. A lecture, recitation, and laboratory course. (Every year)

**BIO 212. Introduction to Biology II**  (5 hours)
Prerequisite: BIO 211 or CHM 222
Continues the introduction to the unifying principles of the biological sciences. Subjects include basic biochemistry, energy transfer, cell biology, physiology, genetics and the vertebrate immune system. A lecture, recitation, and laboratory course. (Every year)

**BIO 250. Current Issues in Biology**  (1 hour)
Pre- or corequisite: BIO 211.
A seminar focusing on current research problems in all disciplines of the biological sciences. Student analysis, discussion, and presentation of primary literature are required. This course may be repeated for a maximum of three semester credit hours; however, no more than two credit hours may be counted as part of the biology major. (Occasional)

**BIO 299. Research in Biology**  (1-2 hours)
Participation in an on-going research program directed by one or more faculty members. One-hour credit will be awarded for a minimum of three hours per week per semester of participation. A maximum of two credit hours can be earned per semester. This course may be repeated for a maximum of three semester credit hours. (Every semester)
BIO 300. Invertebrate Zoology  (4 hours)
(Same as EES 300)
Prerequisite: BIO 212.
A systematic study of the invertebrate taxa with emphasis on phylogeny, comparative morphology and physiology, behavior, and ecology. A library research paper is required. A lecture and laboratory course. (Every two years)

BIO 301. Vertebrate Zoology  (4 hours)
Prerequisite: BIO 212.
A systematic study of vertebrate organisms with emphasis on comparative morphology, behavior, ecology, and phylogeny. A library research paper is required. A lecture and laboratory course. (Every year)

BIO 302. Plant Biology  (4 hours)
Prerequisite: BIO 212.
A systematic study of photosynthetic organisms, including unicellular and multicellular protists, bryophytes, seedless vascular plants, and seed plants. May include study of fungi. Emphasis is placed on anatomy, morphology, physiology, and evolutionary relationships. A library research paper is required. A lecture and laboratory course. (Every two years)

BIO 303. Microbiology  (4 hours)
Prerequisite: BIO 212. Organic chemistry recommended.
A course in general microbiology covering activities and distinguishing characteristics of microorganisms, including viruses. Laboratory work deals with isolation, identification and cultivation of microorganisms, their metabolic activities, and responses to environmental factors. A lecture and laboratory course. (Every two years)

BIO 310. Genetics  (4 hours)
Prerequisite: BIO 212.
A study of the mechanics of heredity considering molecular, cellular, organismal, and population phenomena. Formal laboratory writing is required. A lecture and laboratory course. (Every semester)

BIO 315. Field Studies in Biology  (3 hours)
(Same as EES 315)
The biological study of a given region of the world through travel, field work, reading, and lecture. Specific topics (e.g., ecology, animal behavior, zoology, botany, and/or environmental issues) will reflect the expertise of the instructor and the characteristics of the region. As appropriate, field experience will be supplemented by informal lectures, seminars, demonstrations, discussions, experimentation, and directed study. A library research paper as well as other forms of writing will be required. A lecture and field course. (Every year)

BIO 322. Identification of Vascular Plants  (4 hours)
Prerequisite: BIO 212 or consent of instructor.
A study of the families, genera, and species of vascular plants represented in the flora of Georgia and the southeastern United States. Independent work in the field is required. A field, laboratory, and lecture course. (Occasional)

BIO 325. Comparative Animal Physiology  (4 hours)
Prerequisite: BIO 212 or 205. Organic chemistry strongly recommended.
A study of the diverse ways in which different kinds of animals meet their functional requirements. Attention will be paid to the evolutionary relationships of animals by comparing physiological and biochemical characteristics. Formal laboratory writing may be required. A lecture and laboratory course. (Every semester)
BIO 330. Vertebrate Histology (4 hours)
Prerequisite: BIO 212.
An observation and discussion of the structure and function of vertebrate cells and tissues. The course involves microscopic examination of selected tissues and the preparation of microscope slides. A lecture and laboratory course. (Every two years)

BIO 370. Principles of Ecology (4 hours)
(Same as EES 370)
Prerequisite: BIO 212.
A study of relationships between organisms and their physical and biological environment. Ecological relationships will be considered from the perspectives of individuals, populations, and communities. Work in the field is required and oral presentations are emphasized. A lecture, laboratory, and field course. (Every year)

BIO 375. Organic Evolution (3 hours)
Prerequisite: BIO 212.
A study of the principles of evolutionary theory. The course covers the historical development of evolutionary thought, the nature of organic diversity, variation, adaptation, natural selection, and other mechanisms of evolutionary change. A lecture course. (Occasional)

BIO 381. Urban Ecosystems (3 hours)
(Same as EES 381)
Prerequisites: BIO 220/211 or EES 150.
A study of the relationship between the urban environment and the associated biological, physical, social and political systems. Emphasis will be placed on ecological principles and processes as they relate to the urban ecosystem including the impacts of urbanization on biodiversity, air and water quality, production and management of waste, energy use and land use patterns. The historical development of cities and current urbanization trends will be considered with a focus on urban sprawl. Lecture/discussion course. (Every two years)

BIO 390. Special Topics in Biology (Subtitle) (1-4 hours)
Prerequisites: to be specified.
Study of a topic not available through normal departmental offerings. Topics will be announced in advance. Credit hours and prerequisites will be determined by the nature of the topic, with a maximum of 4 credit hours per course. No more than 4 credit hours may be counted as part of the biology major. (Occasional)

BIO 410. Molecular Genetics (4 hours)
Prerequisites: BIO 310 and CHM 222.
A detailed study of the molecular aspects of gene structure, function, and evolution. Laboratory work will focus on recombinant DNA technology and other molecular tools used by modern geneticists. Experimental design and formal laboratory writing are required. A lecture and laboratory course. (Every two years)

BIO 440. Aquatic Biology (4 hours)
(Same as EES 440)
Prerequisite: BIO 212.
Aquatic ecosystems encompass a wide spectrum of habitats, ranging from the world's major oceans and rivers down to the smallest tidal pools and mountain streams. Course content will reflect this diversity as well as the fundamental principles unifying these systems, emphasizing the adaptations of representative communities to the physicochemical characteristics of the varied habitats. The laboratory component will combine field trips to local middle Georgia aquatic environments with wet labs, where collected plant and animal
samples will be identified. Experimental design and formal laboratory writing are required. A lecture, laboratory, and field course. (Every two years)

**BIO 450. Development**  
(4 hours)  
Prerequisite: BIO 212.  
A study of the developmental process in animals and plants with emphasis on the molecular and cellular mechanisms by which development is regulated in animals. Experimental design and formal laboratory writing are required. A lecture and laboratory course. (Occasional)

**BIO 460. Eukaryotic Cell Biology**  
(3 hours)  
Prerequisite: BIO 212. Organic chemistry strongly recommended.  
A study of the structure and function of eukaryotic organelles as distinct compartments. Emphasis is placed on understanding the role of each organelle in the overall functioning of the individual cell. Electron micrographs are used extensively. (Every two years)

**BIO 460L. Eukaryotic Cell Biology Laboratory**  
(1 hour)  
Corequisite: BIO 460  
Investigative laboratory component to complement BIO 460. Techniques include gel electrophoresis, centriugation, cell culturing, Western blotting, chromatography, and microscopy. Experimental design and formal laboratory writing are required. The course includes one four-hour laboratory each week. (Every two years)

**BIO 465. Biochemistry I**  
(Same as CHM 465)  
(3 hours)  
Prerequisites: BIO 212 and CHM 222.  
A course on the nature of the chemical and physiochemical properties of living organisms. Includes an overview of the synthesis and structure of biological macromolecules, enzyme kinetics, mechanisms of reactions, metabolism, and energy exchange. This course includes three one-hour lectures per week. (Every semester)

**BIO 465L. Biochemistry I Laboratory**  
(Same as CHM 465L)  
(1 hour)  
Corequisite: CHM/BIO 465.  
Investigative laboratory component to complement CHM/BIO 465. Techniques used include electrophoresis, analysis of enzyme kinetics, chromatography, centrifugation, and protein analysis and centrifugation. Experimental design and formal laboratory writing are required. The course includes one four-hour laboratory each week. (Every year)

**BIO 466. Biochemistry II**  
(Same as CHM 466)  
(3 hours)  
Prerequisite: CHM/BIO 465.  
A continuation of CHM/BIO 465 covering the chemistry of cellular metabolism. Topics include biosynthesis and degradation of lipids, amino acids, and nucleotides; photosynthesis; the chemistry of DNA and RNA; and the concepts of molecular physiology. The course includes three one-hour lectures each week. (Every year)

**BIO 466L. Biochemistry II Laboratory**  
(Same as CHM 466L)  
(1 hour)  
Corequisite: CHM/BIO 466.  
Investigative laboratory component to complement CHM/BIO 466. The course focuses on the analytical tools used in the modern biochemical laboratory. Experimental design and formal laboratory writing are required. The course includes one four-hour laboratory each week. (Every year)
BIO 480. Conservation Biology (4 hours)
(Same as EES 480)
Prerequisites: BIO 211 and 212
This course is a study of the concepts of conservation biology and the application of ecological principles and techniques to the protection and study of biodiversity. Subjects include threats to biological diversity, conservation at the population and species level, and practical applications of conservation biology. A lecture and laboratory course. (Every two years)

BIO 490. Advanced Topics in Biology (Subtitle) (1-4 hours)
Prerequisites: BIO 212 and other courses to be specified.
A detailed study of an advanced topic not available through normal offerings. Topics will be announced in advance. Credit hours and additional prerequisites will be determined by the nature of the topic with a maximum of 4 credit hours per course. May be taken more than once as part of the biology major. Can be used as the 400-level laboratory course in the major requirements only if a laboratory with experimental design and formal laboratory writing is included. (Occasional)

BIO 499. Senior Research in Biology (1-4 hours)
A special problem or research project will be arranged according to the qualifications of the student. The student should plan to extend this work over a period of at least two semesters, with the credit being assigned in the second semester. Credit hours to be determined by the nature of the problem or research, with a maximum of 4 credit hours for a single topic. No more than 4 credit hours of BIO 499 can apply toward the major. This project can also be used as part of an Honor Program in Biology. (Every semester)

BUSINESS (BUS)
For description of the courses offered in this area, and of the requirements for the minor (for Liberal Arts majors), see the section, EUGENE W. STETSON SCHOOL OF BUSINESS AND ECONOMICS, in this catalog.

CHEMISTRY (CHM)
Jeffrey D. Hugdahl, Chair/Associate Professor
Robert J. Hargrove, Professor
Dale E. Moore, Andrew J. Pounds, Brian E. Rood, and Caryn S. Seney, Associate Professors
Kevin M. Bucholtz, David R. Goode, Adam M. Kiefer, Jennifer L. Look, and Bridget G. Trogden, Assistant Professors

The role of the Department of Chemistry is to foster the development of students in the understanding of the chemical foundations that are central to chemical, physical, and biological sciences. The Department of Chemistry offers a Bachelor of Science degree and contributes to the concentration in Biochemistry and Molecular Biology.

The Bachelor of Science major in chemistry consists of these courses totaling at least 38 semester credit hours: CHM 111/112 or 115; CHM 221, 222, 241, 311, 331, 332, 341, 371, 372, and 395; at least three credit hours chosen from CHM 411, 421, 431, 465, or 481/481L; and two credit hours of lab chosen from CHM 401, 402, 465L, and 466L. Required courses from other departments include: MAT 191 and 192; PHY 161/121L and 162/162L. Successful completion of a senior comprehensive examination is required.

A student may elect a program that will result in American Chemical Society certification in chemistry or certification in chemistry with an emphasis in biochemistry. To meet the requirements for certification in chemistry, coursework must include: BIO/CHM 465; at least
three credit hours chosen from CHM 411, 421, 431, 481/481L; and CHM 401 and 402. For certification in chemistry with an emphasis in biochemistry, coursework must include: BIO/CHM 465 and 466; four credit hours of advanced lab chosen from CHM 401, 402, BIO/CHM 465L, and BIO/CHM 466L; and one additional course in Biology chosen from BIO 303, 310, and 460.

A minor in Chemistry consists of CHM 111/112 and at least seven additional credit hours in CHM courses numbered above 200; or CHM 115 and at least ten additional credit hours in CHM courses numbered above 200. No more than one credit hour of CHM 295 may be counted toward the minor requirement.

Departmental Honors in chemistry may be attained by fulfilling the following requirements: (1) select an honors faculty advisor in chemistry by the end of the semester in which one accumulates 96 semester credit hours and keep this advisor informed of progress toward satisfying the honors requirements; (2) complete the B.S. major in chemistry with a grade point average of 3.50 or above in the major. (3) complete at least 4 semester credit hours of chemical research (CHM 401 and CHM 402) with a grade point average of 3.00 or above; and (4) write a paper of publishable quality on an approved topic of chemistry, using the format of the Journal of the American Chemical Society.

Secondary Teacher Certification Program in Chemistry

Teacher certification in chemistry (6-12) is available to chemistry majors who complete BIO 211 and 212 and BIO/CHM 465. Students planning to teach chemistry in secondary schools should notify their advisor and contact the secondary education advisor in Tift College of Education. Required courses in education include EDUC 210, 220, 256, 283, 357, 398, 399, 406, 423, 469, 476, 485, and 492. Please consult the TIFT COLLEGE OF EDUCATION section of this catalog for more details. Georgia Professional Standards Commission approval of this new certification option is pending.

CHM 099. Chemistry Problem Solving (1 hour)
Corequisites: CHM 111 and MAT 133.
A support course taken in conjunction with General Chemistry I. This course provides explicit problem-solving instruction, focusing on learning and practicing those strategies appropriate to General Chemistry. Chemistry Problem Solving includes one weekly one-hour recitation meeting. (Every year)

This course does not count toward the degree.

CHM 111. General Chemistry I (4 hours)
Prerequisite: MAT 133 or equivalent, or coenrollment in CHM 099.
CHM 111 is the first course in a two-part sequence that introduces students to the fundamental principles of chemistry. It studies matter and its transformation in chemical reactions. The states of matter, stoichiometry, equilibrium, and acid-base chemistry are treated in detail and are explained on the basis of atomic structure, chemical bonding, molecular geometry, and the kinetic molecular theory. Laboratory work introduces volumetric and simple analytical techniques in chemistry. The course includes three one-hour lectures and one three-hour laboratory each week. (Every year)

CHM 112. General Chemistry II (4 hours)
Prerequisite: a grade of C or better in CHM 111.
CHM 112 is the second course in a two-part sequence that introduces students to the fundamental principles of chemistry. Students will be exposed to the theoretical and experimental bases of thermodynamics, kinetics, oxidation-reduction reactions, and quantum mechanics. Within this framework, the concepts of thermo-chemistry, free energy, reaction rates, electrochemistry, and bonding theory will be developed. The course includes three one-hour lectures and one three-hour laboratory each week. (Every year)
CHM 115. Advanced General Chemistry  (5 hours)
Co- or prerequisite: MAT 191.
CHM 115 is an accelerated general chemistry course that seeks to unify many of the
themes in General Chemistry to develop a comprehensive understanding of the subject.
Students in CHM 115 will be introduced to the microscopic and macroscopic descriptions
of matter and its behavior. They will be exposed to the fundamental laws of mass and energy
conservation and their application to chemical systems and reactions. Students will also
be introduced to the fundamentals of chemical thermodynamics and its bearing on equilib-
rium in gases, acids and bases, and ionic solutions. The course includes three one-hour lec-
tures, one three-hour laboratory, and one one-hour computational recitation each week.
(Every year)

CHM 221. Organic Chemistry I  (4 hours)
Prerequisite: CHM 112 or CHM 115.
A study of the chemistry of carbon compounds. The various functional groups and their trans-
formations are studied systematically. Reaction mechanisms and the formulation of synthetic
schemes are emphasized. Basic theory and interpretation of ultraviolet/visible, infrared,
and nuclear magnetic resonance spectroscopies and mass spectrometry are discussed.
Laboratory work involves the separation, preparation, and both chemical and instrumental
analysis of organic compounds. The course includes three one-hour lectures and one three-
hour laboratory each week. (Every year)

CHM 222. Organic Chemistry II  (4 hours)
Prerequisite: a grade of C or better in CHM 221.
A continuation of CHM 221. The course includes three one-hour lectures and one four-hour
laboratory each week. (Every year)

CHM 241. Quantitative Analysis  (3 hours)
Prerequisite: CHM 112 or CHM 115.
A study of classical methods of analysis, stressing the quantitative aspects of chemistry.
Emphasis is given to the treatment of analytical data (including error analysis). A thorough
study of equilibria as it pertains to acid/base, precipitation, complexation, and redox phe-
nomena is included. An introduction to quantitative spectroscopy, as it pertains to atomic
absorption and ultraviolet/visible spectral methods, is given. Laboratory work includes gravimetric,
volumetric, atomic absorption, ultraviolet/visible, and simple potentiometric methods
of analysis. The course includes two one-hour lectures and one four-hour laboratory per
week. (Every year)

CHM 281/281L. Special Topic in Chemistry (Subtitle)  (1-4 hours)
Prerequisites: CHM 112 recommended; other prerequisites to be specified with each indi-
vidual course offering.
Study of a special topic in chemistry requiring appropriate background in general chemistry
and not covered in any of the normal department offerings. The number of lecture and/or
laboratory meetings will vary according to the topic. This course cannot be applied toward
the chemistry major requirements and does not count toward any of the College of Liberal
Arts general education requirements, but it can be applied toward the chemistry minor. May
be repeated for credit if offered with a different topic. (Occasional)

CHM 295. Chemical Research  (1-2 hours)
Prerequisites: approval of department chair and a faculty research director.
Participation in an independent research problem directed by one or more faculty members.
One hour credit will be awarded for three hours per week per semester of satisfactory par-
ticipation. A maximum of two credits can be earned per semester. This course may be
repeated for a maximum of six semester credit hours. Attendance at departmental seminars and a seminar paper are required for each research topic taken. (Every semester)

**CHM 311. Inorganic Chemistry**
(3 hours)
Prerequisite: CHM 221.
A survey of the chemistry of the elements, including main group, transition metal, and organometallic compounds in both inorganic and biological systems. An examination of acid-base and redox properties of these compounds is included. This course presents the structure, bonding, and reactivity of inorganic compounds through three one-hour lectures each week. (Every year)

**CHM 331. Quantum and Statistical Mechanics**
(3 hours)
Prerequisites: CHM 112 or 115, MAT 192, PHY 162/162L.
An introduction to quantum mechanical and statistical thermodynamic models. The principles and applications of quantum chemistry are introduced, including exactly soluble models, and atomic and molecular spectra. Properties of matter are interpreted by application of statistical mechanics to populations of atoms and molecules. Both segments of the course entail rigorous application of numerical methods to problems in physical chemistry. Course meetings include three one-hour lecture periods per week. (Every year)

**CHM 332. Reaction Dynamics**
(3 hours)
Prerequisites: CHM 112 or 115, MAT 192.
An introduction to the thermodynamic and kinetic influences on chemical and biochemical reactions. Course topics include laws of thermodynamics, phase equilibria, chemical equilibria, kinetic theory, empirical kinetics, and reaction mechanisms. Examples are drawn primarily from process chemistry and biochemistry. Course meetings include three one-hour lecture periods per week. (Every year)

**CHM 341. Instrumental Analysis**
(3 hours)
Prerequisites: CHM 222, 241.
A study of the instruments that are used for separation (such as gas chromatography and high performance liquid chromatography) and spectroscopic methods of analysis (including infrared, ultraviolet/visible, nuclear magnetic resonance, atomic absorption, atomic emission, and mass spectrometry). Attention is given to the block diagrams and the basic theory of the various instruments. (Every year)

**CHM 351. Environmental Chemistry**
(4 hours)
*(Same as EES 351)*
Prerequisite: CHM 241.
A study of the physicochemical properties of substances that determine their fate and transport in the environment. Inorganic and organic substances will be examined as they are deposited, transported, transformed, and stored in the soil/sediment, water, and atmosphere. Techniques for the sampling and analysis of nutrients, toxic metals, and organic priority pollutants will be examined. A lecture, laboratory, and field course. (Occasional)

**CHM 371. Problems in Chemistry I**
(2 hours)
Prerequisites: CHM 222 and 241, MAT 192, PHY 162/162L.
Corequisites: CHM 331 and 341.
This laboratory capstone course features a set of experimental projects designed to integrate concepts and techniques from the major divisions of chemistry, presenting chemistry as a unified science. Formal written laboratory reports are required. The course includes two three-hour laboratory meetings each week. (Every year)
CHM 372. Problems in Chemistry II (2 hours)
Prerequisite: CHM 371.
A continuation of CHM 371, this laboratory capstone course features a set of experimental projects designed to integrate concepts and techniques from the major divisions of chemistry, presenting chemistry as a unified science. Formal written laboratory reports are required. The course includes two three-hour laboratory meetings each week. (Every year)

CHM 395. Chemistry Seminar (1 hour)
Prerequisite: CHM 222.
A seminar series consisting of meetings to discuss articles in all areas of chemistry from the current chemical literature. Students will prepare presentations on primary research articles and serve as discussion leaders. The course includes one one-hour seminar per week. This course may be repeated for a maximum of two hours of credit. (Every year)

CHM 401. Senior Research I (1-2 hours)
Prerequisites: senior status and departmental approval.
Independent research directed by a faculty member. Students work toward laboratory research goals prepared in consultation with a faculty mentor. Written and oral presentations are required. The course includes approximately six hours in the laboratory each week. (Every year)

CHM 402. Senior Research II (1-2 hours)
Prerequisites: CHM 401 and departmental approval.
Independent research directed by a faculty member. Students work toward laboratory research goals prepared in consultation with a faculty mentor. Written and oral presentations are required. The course includes approximately three hours in the laboratory each week. (Every year)

CHM 411. Advanced Inorganic Chemistry (3 hours)
Prerequisites: CHM 311, CHM 332, senior status, and departmental approval.
A survey of the advanced chemical theories applied to the interpretation of the relationship between chemical structure and observable properties of inorganic materials, including quantum mechanical description of atomic and bonding models. Special attention is given to the structure and bonding, the characterization, and the representative chemistry of transition metal compounds. The course includes three one-hour lectures each week. (Every three years)

CHM 421. Advanced Organic Chemistry (3 hours)
Prerequisites: CHM 332 and 341, senior status, and departmental approval.
A course devoted to topics in organic chemistry more advanced than those covered in CHM 222 and centered upon the relationship between structure and reactivity of organic molecules. Mechanistic and synthetic strategies are discussed, utilizing original literature and experimental data as a basis. The course includes three one-hour lectures each week. (Every three years)

CHM 431. Advanced Quantum Chemistry (3 hours)
Prerequisites: CHM 331, senior status, and departmental approval.
A course devoted to topics in quantum chemistry more advanced than those covered in CHM 331. The principles of operators and observables are presented, along with eigenvalues, eigenvectors, superpositions, expectation values and matrix elements. Techniques from linear algebra will be applied to solving modern quantum mechanical problems, and modern computational methods will be used as appropriate. The course includes three one-hour lectures each week. (Every three years)
CHM 465. Biochemistry I (3 hours)
(Same as BIO 465)
Prerequisites: CHM 222 and BIO 212.
A course on the nature of the chemical and physiochemical properties of living organisms. Includes an overview of the synthesis and structure of biological macromolecules, enzyme kinetics, mechanisms of reactions, metabolism, and energy exchange. This course includes three one-hour lectures per week. (Every semester)

CHM 465L. Biochemistry I Laboratory (1 hour)
(Same as BIO 465L)
Corequisite: CHM/BIO 465.
Investigative laboratory component to complement CHM/BIO 465. Techniques used include electrophoresis, analysis of enzyme kinetics, chromatography, centrifugation, and protein analysis and centrifugation. Experimental design and formal laboratory writing are required. The course includes one four-hour laboratory each week. (Every year)

CHM 466. Biochemistry II (3 hours)
(Same as BIO 466)
Prerequisite: CHM/BIO 465.
A continuation of CHM/BIO 465 covering the chemistry of cellular metabolism. Topics include biosynthesis and degradation of lipids, amino acids, and nucleotides; photosynthesis; the chemistry of DNA and RNA; and the concepts of molecular physiology. The course includes three one-hour lectures each week. (Every year)

CHM 466L. Biochemistry II Laboratory (1 hour)
(Same as BIO 466L)
Corequisite: CHM/BIO 466.
Investigative laboratory component to complement CHM/BIO 466. The course focuses on the analytical tools used in the modern biochemical laboratory. Experimental design and formal laboratory writing are required. The course includes one four-hour laboratory each week. (Every year)

CHM 481/481L. Advanced Topic in Chemistry (Subtitle) (1-4 hours)
Prerequisites: CHM 331 and 332, senior status and/or departmental approval.
Study of an advanced topic in chemistry in greater depth than in any of the normal department offerings. The number of lecture and/or laboratory meetings will vary according to the topic. This course can be applied toward the requirements for the major or minor in chemistry and toward the American Chemical Society certified degree program. May be repeated for credit if offered with a different topic. (Occasional)

CHRISTIANITY (CHR)
Richard Francis Wilson, Chair/Professor
Margaret Dee Bratcher and Robert Scott Nash, Professors
Darlene Kaye Flaming, and Paul Allen Lewis, Associate Professors
Janell Anne Cook Johnson and Bryan Jay Whittlefield, Assistant Professors

The curriculum of the Christianity Department is designed to achieve the following goals:

1. To develop in students a knowledge of and appreciation for the Christian tradition in particular and religion in general;
2. To expose students to the breadth and depth of theological inquiry through biblical studies, Christian history, Christian theology, and Christian ethics;
3. To sharpen students’ abilities to think logically, to read critically, to communicate effectively, both orally and in writing, and to act compassionately;

4. To afford students the opportunity to study the Christian tradition within the context of a liberal arts education so as to enhance personal and professional growth;

5. To assure that students have an adequate academic experience to pursue graduate theological education and future professional studies.

To achieve these goals, Christianity majors are required to complete successfully the following course of study. A major in Christianity consists of a minimum of 30 semester hours, including the following (all courses are three hours unless noted otherwise):

1. CHR 101 and 150;

2. CHR 250, which the department strongly advises to be taken in the sophomore year;

3. four courses to be taken from the following:
   a. one course in biblical studies, chosen from CHR 302, 305, 310, 315, 380, or an appropriate CHR 410;
   b. one course in historical studies, chosen from CHR 210, 370, or an appropriate CHR 410;
   c. one course in theological studies, chosen from CHR 300, 320, 325, or an appropriate CHR 410;
   d. one course in ethical studies, chosen from CHR 330, 335, 363, or an appropriate CHR 410;

4. two colloquia:
   a. CHR 385: Junior Colloquium (one hour)
   b. CHR 485: Senior Colloquium (two hours)

5. six additional CHR hours

A major must have a minimum of 18 hours in courses numbered 300 and above.

Majors may attain Departmental Honors by fulfilling the following requirements: (1) attain a grade point average of 3.75 or above in the major; (2) complete the research and writing of a thesis under the direction of a member of the Christianity faculty, and have the thesis judged by a committee of the Christianity faculty (if the thesis merits recognition, 3 hours credit may be given for CHR 420); (3) pass an oral examination by a committee of at least three members of the Christianity faculty.

A minor consists of 15 semester hours, including CHR 101 and 150 and nine additional semester hours, six of which must be numbered 300 or above.

Unless otherwise stated, either CHR 101 or 150 is a prerequisite to all other courses in the Christianity Department.

CHR 101. Old Testament (3 hours)
An introduction to the history, literature, and theology of the Old Testament. (Every semester)

CHR 150. New Testament (3 hours)
An introduction to the history, literature, and theology of the New Testament. (Every semester)
CHR 210. History of Christianity (3 hours)
An introduction to developments in Christian history from the first century to the present. (Every two years)

CHR 250. Theological Research and Writing (3 hours)
An introduction to basic theological vocabulary, bibliography, library resources, and research methodologies with a rigorous emphasis on improving writing skills. (Every fall semester)

CHR 300. Introduction to Christian Theology (3 hours)
An introduction to the major topics in Christian theology. Issues explored include the nature of theological language and theological methods, the concept of revelation, the character of God, the character of humankind, the reality of sin, the significance of Jesus the Christ, the identity of the church, and the shape of Christian hope. (Every three years)

CHR 302. Biblical Interpretation (3 hours)
A study of the principles and methods by which the Bible is interpreted. (Every three years)

CHR 305. Old Testament Prophets (3 hours)
Prerequisite: CHR 101.
A study of the prophets of the Old Testament, including the nature and history of the prophetic movement in Israel and the messages of selected prophets. Emphasis will be given to Amos, Hosea, Isaiah, Jeremiah, Ezekiel, and Second Isaiah. (Every two years)

CHR 310. Jesus (3 hours)
Prerequisite: CHR 150.
An investigation of the Gospels' portraits of Jesus in the light of other ancient literature, the world of Jesus, and scholarship about the Jesus of history. (Every two years)

CHR 315. Paul (3 hours)
Prerequisite: CHR 150.
A study of the life and thought of Paul based on Acts and the letters of Paul in their literary, historical, social, and religious contexts. (Every two years)

CHR 320. New Testament Theology (3 hours)
Prerequisite: CHR 150.
An introduction to the theology of the New Testament. (Every three years)

CHR 325. Contemporary Christian Theology (3 hours)
A survey of Christian theology in the 20th Century, with emphasis on developments since 1960. Theologians explored include Karl Barth, Paul Tillich, Dietrich Bonhoffer, James H. Cone, Rosemary Radford Ruether, Gustavo Gutiérrez, Donald Bloesch, Stanley Hauerwas, and selected others. (Every three years)

CHR 330. Approaches to Christian Ethics (3 hours)
An exploration of Christian ethics that focuses on classic texts drawn from a broad range of church history. Although the course will deal with some specific moral issues, the focus will be on how thinkers have used insights from the Bible, theology, philosophy, the sciences, and human experience to address a range of questions that may include: What does it mean to be moral? Why be moral? How do we know what is moral? How do we become moral? How can we make responsible decisions? (Every two years)

CHR 335. Christian Ethics In America (3 hours)
An exploration of Christian ethics that focuses on the implications of Christian faith for life in civil and political society in the United States. The course will engage readings in Christian ethics since the 1960s that address a variety of issues that may include character, race, eco-
nomistic justice, the environment, family/marriage, gender, sexuality, the professions, politics, and violence. The course may also require participation in service-learning opportunities. (Every two years)

CHR 353. Christianity in America (3 hours)
An examination of the history, practices, and influence of various Christian groups in the United States. Attention will be given to the development of denominations, the rise of non-denominational sectarian groups, and the plurality of contemporary expressions of Christianity in America. (Every two years)

CHR 356. Eastern Religions (3 hours)
An examination of the history, sacred texts, beliefs, and practices of the major religious traditions originating in India and East Asia. Religions studied will include Hinduism, Buddhism, Jainism, Sikhism, and religions indigenous to China and Japan. Attention will be given to the development of these religions in their places of origin and to their growth beyond Asia, especially in North America. (Every two years)

CHR 357. Western Religions (3 hours)
An examination of the history, sacred texts, beliefs, and practices of the major non-Christian religious traditions originating in the Middle East, Europe, Africa, and the Americas. Special attention will be given to Islam and Judaism, but other religions studied may include Zoroastrianism, African indigenous traditions, ancient European traditions, and Native American traditions. (Every two years)

CHR 363. Women and Christianity (3 hours)
(Same as WGS 363)
Prerequisite: CHR 101 or CHR 150, and WGS 180 or permission of the instructor.
A biblical, historical, and theological examination of the role of women within the Christian tradition. (Every three years)

CHR 365. The Baptist Tradition (3 hours)
A study of the Baptist identity and its free-church character in the light of Baptist history. (Every two years)

CHR 370. History of Christian Theology (3 hours)
A study of the major Christian thinkers and the impact of their ideas in the development of Christian theology. (Every two years)

CHR 380. Biblical Hebrew (4 hours)
An extensive introduction to biblical Hebrew, covering grammar, vocabulary, and readings from the Old Testament. The schedule includes a one-hour per week laboratory session. This course does not count toward credit in foreign languages. (Every three years)

CHR 385. Junior Colloquium (1 hour)
Prerequisites: junior status and declaration of a major in the department.
A course of readings and discussion based upon topics selected by members of the department and essays prepared by senior-level majors in the department. (Every semester)

CHR 400. Supervised Independent Reading (1-3 hours)
An intensive study of a topic in religion, limited in scope, for the purpose of developing a bibliography, concentrated reading, and tutorial discussion with the instructor. (As needed)

CHR 410. Seminar on Selected Topics in Religion (1-3 hours)
An in-depth investigation of a significant topic in religion not available through other departmental offerings. (As needed)
CHR 420. Directed Independent Research (3 hours)
Prerequisites: junior or senior status and departmental approval.
Requirements include selection of a problem area or project, survey of relevant literature, research, and formal report of findings. (As needed)

CHR 485. Senior Colloquium (2 hours)
Prerequisites: senior status and declaration of a major in the department.
A course of readings and discussion based upon topics selected by members of the department and essays prepared by senior-level majors in the department. Each senior enrolled will prepare an essay under the direction of a member of the department and present the essay to the class. (Every semester)

CLASSICAL STUDIES (CLA)

For a description of the courses offered in Classical Literature and the Classical Studies concentration, see the FOREIGN LANGUAGE and LITERATURES section.

COMMUNICATIONS STUDIES (COM) AND THEATRE (THR)

Frank Joseph Macke, Chair/Professor
Marian Frances Zielinski, Professor
Kevin Cummings and C. Jay Pendleton, Associate Professors
Scot J. Mann, Assistant Professor

The Department of Communication Studies and Theatre invites students to explore the important ways that human communication and theatre performance affect our lives, society, and culture. Central to our pursuit of understanding the complexities of communication in the 21st Century is the study of narratives, rhetoric, and human relationships from the interpersonal to the public arena of live performance. Our classes examine the ways that communication impacts the development of self, culture, and society. We focus on theoretical accounts of human interactions and the ways that those approaches to communication inform relationships in applied settings. We explore a communicology of Theatre by addressing the challenges of performance and message in the context of the theatrical experience. Students who wish to deepen their understandings of these issues may do so by pursuing degrees in Communication Studies and in Theatre. The Department’s co-curricular programs, the Mercer Debate Society and the Mercer University Theatre, actively involve students in intercollegiate debate competition and in theatrical performance.

Communication Studies (COM)

The Communication Studies major consists of a minimum of 27 hours. These must include COM 200, 400, and 420. Additional courses numbered 201 through 495 may be taken to meet the minimum requirement for hours. At least 15 hours must be upper division coursework numbered 300 or above.

A minor in Communication Studies consists of a minimum of 15 hours, including as a core, COM 200; a choice of COM 400 or 420, and nine hours of courses numbered 201 through 495. At least nine hours of the minor must be in upper division coursework numbered 300 or above.

In order to earn departmental honors in Communication Studies, a Communication Studies major must meet the following requirements: (1) a minimum overall grade point average of 3.5, and (2) achieve a grade point average of 3.5 in the Communication Studies major.
COM 200. Introduction to Communication (3 hours)
An introductory examination of the fields of study within the Communication discipline. This course focuses on themes of current interest and on fundamental research, inquiry, ethical standards, critical and creative thinking, and analytical skills. (Every semester)

COM 210. Public Speaking (3 hours)
A study of rhetorical theory with emphasis on the preparation and presentation of public speeches. This course enables the student to compose and defend public advocacies and to discuss and promote ethical standards in public address. (Every semester)

COM 220. Group Communication (3 hours)
A study of theoretical and practical issues arising from human communication within the context of the group. The student will examine the impact of power, leadership, and member participation as manifested in group decision-making, problem solving, and conflict management. (Every other year)

COM 230. Intercultural Communication (3 hours)
An exploration of cultural difference and the ways to build awareness and competence in intercultural exchanges. This course explores social problems such as racism and ethnocentrism and examines the ways individuals can find common ground with people from diverse cultural backgrounds. (Every other year)

COM 250. Interpersonal Communication (3 hours)
A study of the theories of interpersonal communication with emphasis on the application of core principles. Specifically, this course involves the identification of ways that communal systems of meanings shape our interactions and relations with others. (Every other year)

COM 290. Intercollegiate Debate (1 hour)
Prerequisite: consent of the instructor.
Academic credit for those who actively participate in competitive intercollegiate debate. May be repeated for up to 3 hours. (Every semester)

COM 315. Gender and Communication (3 hours)
(Same as WGS 315)
A study of gender in relation to the public sphere. The primary focus is on feminist approaches to rhetoric and rhetorical theory. Students will also examine how gender intersects with the study of human relationships. (Every other year)

COM 320. Classical Foundations of Rhetorical Theory (3 hours)
An introduction to classical approaches to the study of rhetoric. The course may be taught as a history of the conflict between rhetoric and philosophy, or as an examination of key figures in classical rhetorical theory including Protagoras, Gorgias, Aristotle, Isocrates, Cicero, and Quintilian. (Every other year)

COM 340. Organizational Communication (3 hours)
A study of organizational theory and its application to professional situations. The course entails a study of the ways corporations are involved in public decision-making processes, and an examination of organizations as systems of human interaction. (Every other year)

COM 360. Persuasion in Campaigns and Social Movements (3 hours)
This course examines the importance of persuasion in social and cultural interactions. The course will be contextualized in either the study of campaigns or social movements. The focus is on developing critical thinking skills in response to persuasive messages. (Every other year)
COM 370. Communication and Family Systems  (3 hours)
An exploration of families as systems with emphasis placed on the how the kinship sphere is situated within the signification order. Primary focus will be on the family as a site where identity and a sense of belonging emerge from human relations. Students will also explore descent and lineage in the context of communal activities. (Every other year)

COM 380. Argumentation  (3 hours)
A study of theories of argumentation and their application to contemporary public dilemmas. Focus is on the ability to create and defend a reasoned argument. Students will engage in public advocacy concerning contemporary public controversies. (Every other year)

COM 400. Communication and Culture  (3 hours)
Prerequisite: COM 200 or permission of the instructor.
An examination of the significance of power and culture in the formation of communication patterns, in the performance of communication roles, in the representation of concepts, and in the interpretation of symbols and signs. The course focuses on how communication creates and builds culture, and then is in turn created by culture. (Every year)

COM 420. Discourse and Power  (3 hours)
Prerequisite: COM 200 or permission of the instructor.
A study of the interconnections between discourse and power. The course will entail an examination of the ways discourse shapes ideology and how power relations are socially and politically constituted. (Every year)

COM 490. Special Topics in Communication  (3 hours)
Prerequisite: junior or senior status or permission of the instructor.
A study of some significant topic in communication not covered in the regular department offerings. The specific topics will be chosen according to needs and interests. May be repeated with different projects/topics for a maximum of 9 hours credit. (Occasional)

COM 495. Directed Independent Study  (1-3 hours)
Prerequisite: junior or senior status or permission of the instructor.
An advanced course in theory and research in communication. The student must submit a proposal for research during the semester prior to enrolling in the course. May be repeated with different projects/topics, but total credit may not exceed 6 hours. (Occasional)

Theatre (THR)
The Theatre major consists of a minimum of 30 hours. These must include THR 115, 218, 235, 302, 326 or 327, and 337. Students must choose three additional courses from among: THR 318, 326 or 327, 336, 338, 371, 490, and 495, and one from among: ENG 233, 332, 333, 364, and 367. THR 292 does not count toward the major.

All theatre majors will design a creative major project in consultation with a Theatre faculty member. The project will reflect the classes and experiences of the students in their major classes and in the theatre. Students must submit a typed project proposal to the Theatre faculty for their approval at least one year prior to their expected date of graduation. After the completion of the project, the students will meet with the Theatre faculty and staff to report on their experiences and to engage in a critique of the project. Projects will be evaluated by the Theatre faculty and graded Pass with Distinction, Pass, or Fail.

The Theatre minor consists of THR 115, 218 or 235, plus three additional courses from among the following: THR 326 or 327, 336, 338, 371, 372, and 490.

In order to earn departmental honors in Theatre, a Theatre major must meet the following requirements: (1) a minimum overall grade point average of 3.50, (2) a minimum grade
point average of 3.50 in courses taken in THR, and (3) a grade of Pass with Distinction on
the major project.

**THR 115. Introduction to Theatre** (3 hours)
A study of the nature of the art of theatre, its evolution, and its importance to the develop-
ment of human relationships and culture. This course will include a brief survey of theatre
history, an introduction to script analysis, and an exploration of each facet of theatre pro-
duction, including acting, directing, and design. (Every semester)

**THR 218. Beginning Acting** (3 hours)
Basic experience in the fundamentals of acting for the stage and the camera. Emphasis
will be given to movement, voice/diction, improvisations, scene analysis, and performance
techniques. (Every year)

**THR 235. Stagecraft** (3 hours)
A survey of the materials, tools, and techniques used in the drafting, construction, and
painting of scenery for the stage and screen. This is a lecture/laboratory class. (Every
other year)

**THR 292. Theatre Practicum** (1 hour)
Prerequisite: Consent of the Instructor
Academic credit for those who execute significant creative assignments in theatre produc-
tions. One hour credit for each semester of satisfactory participation. (Every semester)

**THR 302. Directing** (3 hours)
A study of the principles and methods of direction for the stage and the camera. Special
attention will be given to script analysis, movement, picturization, and the needs of the
actor. Each student will direct a one-act play or scene for stage or television. (Every two
years)

**THR 318. Acting II** (3 hours)
Prerequisite: THR 218
Extensive development of acting techniques for stage and film. Emphasis will be given to
classical character development, dialect skills, acting for the camera, audition technique,
and professional resume development. (Every year)

**THR 326. A Survey of Theatre History I** (3 hours)
A survey of theatre history from its primitive origins to 1750. (Every fourth year)

**THR 327. A Survey of Theatre History II** (3 hours)
A survey of theatre history from 1750 to the present, with units on Chinese, Japanese, and
Indian Theatre. (Every fourth year)

**THR 336. Lighting for Stage and Screen** (3 hours)
The study of the physics and principles of lighting design for stage, television, and film.
Emphasis will also be given to script analysis and interpretation into the medium of light.
A lecture/laboratory class. (Every other year)

**THR 337. Scene Design** (3 hours)
A study of the principles of set design for stage and film. Students will analyze dramatic
literature, research period style, and develop renderings, floor plans, and three-dimension-
al models for various plays. (Every other year)

**THR 338. Costume Design** (3 hours)
A study of the social and cultural milieu that influenced historical dress and its research
application to designing costumes for theatre and film. Emphasis will also be placed on
designing costume plates for a particular play, and on the development of skills necessary in costume construction, including drafting and draping patterns, cutting, and stitching, as well as fabric painting and dyeing. A lecture/laboratory class. (Every other year)

**THR 371. Beginning Playwriting**  
(3 hours)  
The goal of this course is to introduce the student to the conventions and techniques of playwriting. Students will complete exercises leading to the creation of an original one-act play. (Every two years)

**THR 390. Special Topics in Theatre**  
(3 hours)  
Prerequisite: Junior or Senior status or consent of the instructor.  
A study of some significant topic in communication or theatre arts not covered in the regular department offerings. The specific topics will be chosen according to needs and interests. May be repeated with different topics for a maximum of nine hours credit. (Occasional)

**THR 495. Directed Independent Study**  
(1-6 hours)  
Prerequisite: Junior or Senior Status or consent of the instructor.  
An advanced course in theory and research in communication and/or theatre arts. The student must submit a proposal for research during the semester prior to enrolling in the course. May be repeated with different projects/topics, but total credit may not exceed 6 hours. (Occasional)

**COMPUTER SCIENCE (CSC), INCLUDING INFORMATION SCIENCES AND TECHNOLOGY (IST)**

David L. Cozart, *Chair/Professor*  
Robert A. Allen and Laurie White, *Professors*  
Andrew Digh, Andrew J. Pounds, and Martin Zhao, *Associate Professors*  
Marshall Rich, *Assistant Professor*

The Computer Science Department offers majors leading to the Bachelor of Science or the Bachelor of Arts degree. Students who wish to pursue either program should consult with the department chair as early as possible to assure an appropriate sequencing of courses.

Mercer University’s Bachelor of Science degree program in computer science is accredited by the Computing Accreditation Commission of ABET, Inc., the recognized accreditor of college and university programs in applied science, computing, engineering, and technology. ABET accreditation demonstrates a program’s commitment to providing its students with a quality education. Students who complete this program will obtain a significant degree of technical competence and breadth of exposure to segments of the discipline and will supplement their program with courses from mathematics and science. They will be prepared to continue their education in graduate programs or to obtain employment as computer science professionals. Forty-three semester hours of computer science courses are required for this degree.

The Bachelor of Arts degree program is appropriate for students who have an interest in computer science but wish to pursue another major (or minor) course of study as well. This program is especially attractive to students who wish to study both mathematics and computer science, or for students who wish to focus on computer applications in business, education, the arts, or other areas. Twenty-seven hours of computer science courses are required for this degree.
Both the B.S. and B.A. degree programs include programming languages, algorithms and data structures, software methodology and tools, and computer hardware. This foundation supports further study in numerous advanced courses such as computer graphics in which students develop interactive graphics packages using equipment in the Graphics Laboratory, digital logic design in which students build their own microcomputer from integrated circuit chips, artificial intelligence in which students learn about computational processes that model human knowledge and reasoning, and software engineering in which students learn to design and to maintain large software projects.

Students who are majoring in computer science are required to take the Major Field Achievement Test in computer science during their senior year. Students are encouraged to participate in the Department's Undergraduate Research Program where they work closely with a faculty member on a research problem in computer science. Results of students' work are presented at the local, regional, national, or international level.

Students may enhance their experience in computer science by participating in the Computer Science Cooperative Program. This program allows students to gain computer-related experience through local businesses and industries. Those interested in this program should consult with the department chair.

The Computer Science Department also offers the Bachelor of Science and the Bachelor of Arts in Information Science and Technology. IST is a newly emerging discipline with its theoretical foundations rooted in computer science, mathematics, and other scientific disciplines. For a complete description of this program, see the listing for Information Science and Technology (IST) immediately following this section.

The Computer Science Department also offers the Bachelor of Science in Computational Science, a new discipline that combines course work in applied mathematics, computer science, and one of the scientific disciplines. A complete description of this program follows the Computer Science program descriptions below.

The Computer Science Department provides course work for the MAPS program in the Stetson School of Business and Economics. Students interested in combining computer science and business should consider this program of study.

The Computer Science Department provides course work in the area of Computer Engineering for the School of Engineering. Students interested in designing both software and hardware should consider this program of study.

Requirements for the B.S. degree:

1. Computer Science Required Courses (31 hours):

   - CSC 204 (4 hours)  CSC 330 (3 hours)
   - CSC 205 (4 hours)  CSC 340 (3 hours)
   - CSC 245 (3 hours)  CSC 460 (3 hours)
   - CSC 322 (4 hours)  CSC 480 (3 hours)
   - CSC 323 (4 hours)

2. Computer Science Electives. At least one course from each of the following groups (12 hours):
   a. CSC 310 or 312
   b. CSC 324 or 360
   c. CSC 380 or 450
   d. One additional (3 hour) CSC course numbered 310 or above (May select a second course from A-C above)
3. Mathematics (15 hours):
   MAT 191 (4 hours)
   MAT 192 (4 hours)
   MAT 225 (4 hours)
   MAT 320 (3 hours)

4. Lab Science Sequence:
   BIO 211 and BIO 212 (10 hours), or
   CHM 111 and CHM 112 (8 hours), or
   PHY 161, 121L and PHY 162, 162L (8 hours)

5. Laboratory Science Elective:
   Select one additional laboratory science course, chosen in consultation with the
   Computer Science faculty.

6. Science/Mathematics Elective:
   Select one additional laboratory science course or one additional mathematics
   course, chosen in consultation with the Computer Science Faculty.

7. Satisfactory completion of the Major Field Test in Computer Science is required.

Requirements for the B.A. degree:

1. Computer Science Courses (15 hours):
   CSC 204 (4 hours)
   CSC 205 (4 hours)
   CSC 245 (3 hours)
   CSC 322 (4 hours)

2. Computer Science Electives (at least 12 hours)
   At least twelve hours of additional CSC courses numbered 310 or above. No more
   than a total of four of these credits may come from CSC 485 and CSC 499 and only
   with prior approval by the department.

3. Mathematics (12 hours):
   MAT 191 (4 hours)
   MAT 192 (4 hours)
   MAT 225 (4 hours)

4. Satisfactory completion of the Major Field Test in Computer Science is required.

Requirements for the Minor:

1. Computer Science Required Courses (8 hours)
   CSC 204 (4 hours)
   CSC 205 (4 hours)

2. Computer Science Electives (9 hours)
   Three CSC courses selected from CSC 245 and/or courses numbered 310 and
   above
Departmental Honors

Departmental Honors in computer science may be earned by students who fulfill these requirements: (1) achieve a 3.5 GPA in CSC courses that apply to the major, (2) prepare a proposal for work on a research project that goes beyond normal coursework two semesters prior to graduation and have it approved by two members of the department, (3) complete the research project under the direction of these two faculty members, and enroll in three semester hours of CSC 499 (Undergraduate Research), (4) prepare a written report of publishable quality using the format of the “Association for Computing Machinery” and present the results of the project to faculty and students at an announced time, and (5) receive final approval of the work by the departmental faculty.

Computational Science

Computational science is a new field that is rapidly emerging out of collaborative research by teams of mathematicians, computer scientists, and scientists, covering a wide variety of disciplines from the physical, health, behavioral, and natural sciences. Rather than viewing computational science simply as potential applications of core subjects in their disciplines, mathematicians and computer scientists see these collaborative projects as a source of new algorithms and ideas that will extend and enrich those fields. Scientists also see computational science as a new endeavor, taking a place alongside theoretical science and experimental science as a fundamental new mode of scientific inquiry. Because computational science seeks to integrate knowledge and methodologies from all of these disciplines, it is a subject which is distinct from any of them.

The BS in Computational Science draws heavily from the disciplines of computer science and applied mathematics, as well as the scientific discipline in which the student chooses to minor.

Itemized List of Requirements for the B.S. Degree in Computational Science:

A. Computer Science (29 hours)
   1. Computer Science Required Courses (26 hours)
      - CSC 204 (4 hours) - Programming I
      - CSC 205 (4 hours) - Programming II
      - CSC 245 (3 hours) - Data Structures and Algorithm Analysis
      - CSC 315 (3 hours) - Introduction to Computer Graphics
      - CSC 335 (3 hours) - Numerical Methods
      - CSC 415 (3 hours) - Graphics Simulation and Visualization
      - CSC 435 (3 hours) - High Performance Scientific Computing
      - CSC 499 (3 hours) - Undergraduate Research

      The undergraduate research project undertaken in CSC 499 must be completed in conjunction with a faculty member from another department or school.

   2. Computer Science Electives (3 hours)
      Three hours of additional CSC course at or above the 300 level.

B. Applied Mathematics (24 hours)
   1. Mathematics Core (12 hours)
      - MAT 191 (4 hours) - Calculus I
      - MAT 192 (4 hours) - Calculus II
      - MAT 225 (4 hours) - Topics in Discrete Mathematics
2. Mathematics Electives (12 hours) selected from:
   - MAT 293 (3 hours) - Multivariable Calculus
   - MAT 320 (3 hours) - Introduction to Probability and Statistics
   - MAT 330 (3 hours) - Differential Equations
   - MAT 340 (3 hours) - Linear Algebra
   - MAT 390 (3 hours) - Topics in Mathematics - Mathematical Modeling

C. Sciences (22 to 29 hours)

1. Two Science Sequences from (16 to 20 hours)
   - (a) BIO 211/212 (10 hours)
   - (b) CHM 111/112 or CHM 115/241 (8 hours)
   - (c) EES 150 and two courses chosen from EES 105,110, or 210 (12 hours)
   - (d) PHY 161/162, PHY 121L, and PHY 162L (8 hours)
   - (e) ECN 150/151 and ECN 353 (9 hours)
   - (f) PSY 101 and one course from each of the following two groups: Group 1: PSY 210,215,225 Group 2: PSY 230,235,240,245,260,270. (9 hours)
   - (g) SOC 101, SOC 304, and one additional 3 credit SOC course (10 hours)
   - (h) POL 101, POL 200, and POL 253 (9 hours)

2. Additional Science Depth (6-9 hours): Requisite courses to complete the minor in one of the disciplines used to satisfy the science sequence requirement in part 1.

D. CLA General Education Requirements (38-46 hours)

CSC 125. Introduction to Computing (3 hours)
An introduction to computer systems with emphasis on the central processing unit, memory units, input and output devices, data communications, operating systems, computer software, programming concepts, and the impact of computers on society. Students will learn to use popular software packages for applications such as word processing, spreadsheets, and data base systems. (Every semester)

CSC 204. Programming I (4 hours)
Prerequisite: mathematics competency.
Students will gain an understanding of computer science foundations by learning how to program in a modern object-oriented language. The basic topics to be covered include structured and object-oriented programming, basic syntax and semantics, simple data types, control structures, classes, arrays, and graphics. Students will also "experiment" with the computer, and learn how to design, test, and debug programs. (Every semester)

CSC 205. Programming II (4 hours)
Prerequisite: CSC 204.
A continuation of CSC 204 with an emphasis on advance object-oriented principles. Topics include inheritance, polymorphism, graphical user interfaces, event-driven programming, recursion, and simple data structures (lists, stacks, queues, and binary search trees). (Every semester)

CSC 206. Visual Programming (3 hours)
Prerequisite: CSC 204.
This course offers an introduction to window-based, visual programming. Emphasis will be on the object-oriented, event-driven languages such as Visual Basic, Visual C++, Delphi, and Access. Students will learn how to create objects, change their properties, and develop appropriate event handlers. (Every year)
CSC 212. Programming Language (Subtitle) (1-3 hours)
Prerequisite: competence in a programming language.
Introduction to a programming language or languages not taught elsewhere in the curriculum. Students will be expected to demonstrate sufficient skills in the language(s) studied. Can be repeated for a maximum of 6 hours. (Every year)

CSC 245. Data Structures and Algorithm Analysis (3 hours)
Prerequisites: CSC 205, and MAT 141 or 191.
A rigorous study of the implementation of different data structures, and an analysis of the time and space complexity of their associated algorithms. Topics will include dynamic memory, trees, hashing, heaps, sorting, and graphs. (Every semester)

CSC 285. Topics in Computer Science (1-4 hours)
Prerequisite: consent of the instructor.
Variable credit, 1-4 hours. May be repeated with different topics. (Occasional)

CSC 290. Theory and Application of Multimedia (3 hours)
An introduction to the technical aspects of computer-based multimedia. Technical and hardware issues as well as theory and design concepts are covered. Students will design and build a multimedia presentation. (Occasional)

CSC 310. Introduction to File Structures (3 hours)
Prerequisite: CSC 245.
A study of the different data structures and algorithms that are appropriate for the placement and organization of data on secondary storage. Physical characteristics of files on different large storage devices are discussed. Concepts studied include indexing, external sorting, B-trees, and extendible hashing. Programming projects related to file processing are required. (Every two years)

CSC 312. Database Systems (3 hours)
Prerequisite: CSC 245.
A study of both logical and physical organization of computer database systems, including DBMS languages, architecture, and interfaces, data modeling, integrity, and security. Emphasis will be placed on relational models, languages, and systems. (Every two years)

CSC 315. Introduction to Computer Graphics (3 hours)
Prerequisite: CSC 205. Corequisite: CSC 245.
A survey of the basic hardware components and the software techniques used in the discipline of computer graphics. Topics to be covered will include two and three-dimensional geometry, matrix representations of transformations, clipping, perspective, stereoscopic views, viewing in three dimensions, and device interaction. Visual realism and animation using color, shading, lighting, and texturing will also be introduced. Each student will be required to complete a project utilizing a graphics workstation. (Every two years)

CSC 322. Computer Organization and Assembly Language (4 hours)
Prerequisite: CSC 204.
Designed to provide an introduction to fundamental concepts of the organization and operation of a computer and to the study of assembly language programming. Included will be the study of register sets, symbolic addresses, addressing techniques, parameter-passing techniques, and data representation. (Every year)

CSC 323. Computer Organization and Logic Design (4 hours)
Prerequisite: CSC 322.
An introduction to the basic organization of a digital computer. Topics will include basic logic design at the circuit level, data coding and representations, functions of large-scale compo-
nents of a computer system, and the mechanics of information transfer and control within a
digital system. Students are introduced to practical design, breadboarding, and testing of
digital circuits in the Hardware Laboratory. (Every year)

CSC 324. Digital System Design (3 hours)
Prerequisite: CSC 323.
Corequisite: CSC 322.
A continuation of the hardware design process begun in CSC 323. (Occasional)

CSC 330. Organization of Programming Languages (3 hours)
Prerequisite: CSC 205.
A study of the concepts and issues underlying the design and implementation of program-
ming languages. Topics considered will be the objects of computation, grammars, ambigui-
ty, control structures, scope and typing of variables, block-structured languages, prece-
dence, recursion, and input/output facilities. Examples will be drawn from a high-level lan-
guage. (Every year)

CSC 335. Numerical Methods (3 hours)
( Same as MAT 335)
Prerequisites: MAT 192 and ability to write programs in a high-level computer language.
A study of numerical methods for the solution of mathematical problems and computer appli-
cation of those methods. Topics will include: methods such as the bisection algorithm and fixed
point iteration for the solution of equations with a single variable, interpolation and polynomial
approximation, numerical differentiation and integration, solution of systems of linear equa-
tions, and least squares approximation. (Every two years)

CSC 340. Introduction to the Theory of Computing (3 hours)
Prerequisites: MAT 225 and the ability to write programs in a high-level computer language.
Fundamentals of computing theory are developed on an intuitive level. Topics studied
include finite automata, context-free grammars, Turing machines, and recursive functions.
The notion of undecidable or noncomputable problems based on the Turing machine model
is discussed briefly. (Every year)

CSC 360. Theory of Data Communications (3 hours)
Prerequisite: CSC 205.
Consideration of the design of communication line characteristics, modems, synchronous
and asynchronous line protocols, error detection and correction schemes including poly-
nomial codes, basic multiplexing, and concentration. (Every year)

CSC 380. Artificial Intelligence (3 hours)
Prerequisites: CSC 245, MAT 225.
An introduction to the problem domains of artificial intelligence and to the principles and
techniques used to design systems that acquire knowledge and demonstrate intelligent
responses. Particular areas studied include deterministic and heuristic search techniques
appropriate for large problem spaces, formal methods of knowledge representation and logi-
cal reasoning, natural language understanding, and neural nets. (Every two years)

CSC 415. Graphics Simulation and Visualization (3 hours)
Prerequisite: CSC 315.
Advanced topics in computer graphics such as viewing in three dimensions, representation
of three-dimensional surfaces and shapes, texture mapping, hierarchical kinematic and
solid modeling, rendering and animation of articulated objects, scientific visualization, and
physical aspects of simulation such as collision detection and gravity will be covered. The
design and implementation of a graphics project focusing on real-time simulation will be
required. (Every two years)
CSC 435. High Performance Scientific Computing (3 hours)
Prerequisite: CSC 335.
An introduction to modern methods in large-scale scientific computing. Topics will include architectures for high performance and parallel computing utilizing both shared memory and distributed memory hierarchies. Algorithms for parallel computing, as well as parallel implementations of codes used in numerical methods, will be studied and their performance enhancements examined. Emphasis will be placed on code development, debugging, testing, and optimization on high performance systems. Students will complete projects related to current computational problem in science and/or engineering. (Every two years)

CSC 450. Compiler Construction (3 hours)
Prerequisites: CSC 245, 322, and MAT 225.
A study of basic techniques of compiler design and implementation including formal description of syntax and semantics, lexical analysis, grammars, syntax analysis, intermediate code, generation of object code, relocation, symbol tables, error detection, and optimization. Students will be engaged in a compiler writing project. (Every two years)

CSC 460. Operating Systems (3 hours)
Prerequisites: CSC 245, 322, and MAT 225.
A survey of functions of an operating system and the algorithms used in its implementation. Input/output programming, interrupt processing, memory management, demand paging, segmentation, processor management, scheduling, synchronization, multiprocessing, device management, dead-lock avoidance, information management, and interdependencies. (Every year)

CSC 480. Software Engineering (3 hours)
Prerequisite: CSC 245.
A study of current techniques used in the development of large-scale software projects. Topics include requirements analysis, functional specification, systems design, implementation, testing, and maintenance. (Every year)

CSC 485. Topics in Computer Science (Subtitle) (1-3 hours)
Prerequisite: consent of the instructor.
May be repeated with different topics, but total credit may not exceed 6 hours. (Occasional)

CSC 499. Undergraduate Research (1-3 hours)
Prerequisite: consent of the instructor.
Individual research projects in computer science are planned, performed, and presented in written and oral form. Significant student results will be submitted to a conference or a journal. Projects are selected in consultation with a CSC faculty member. The course may be repeated, but total credit may not exceed 6 credit hours. This course is typically taken in conjunction with an honors project. Graded S/U. (Occasional)

INFORMATION SCIENCE AND TECHNOLOGY (IST)

The Computer Science Department offers majors in Information Science and Technology that lead to either the Bachelor of Science or the Bachelor of Arts degree. Information Science and Technology (IST) is a newly emerging academic discipline with theoretical foundations rooted in computer science, mathematics, and other scientific disciplines. IST focuses on the integration of the latest technology to solve real-world problems for the end user. This program is interdisciplinary in nature in that it applies technology to solve problems in a variety of disciplines. To acquire this interdisciplinary knowledge, IST students must complete the IST requirements as well as a minor in a different academic area.
The Bachelor of Science degree in Information Science and Technology provides students with a broad IST core that includes an introduction to programming, databases, networks, operating systems, and web design. Students also complete an emphasis in Computer Programming, Internet Development, Computer Networks, or Database Development. Each of these emphases consists of three courses. Four advanced courses in IST together with a senior design course complete the IST requirements for the B.S. degree. IST majors are also required to complete two mathematics courses and one technical communication course. An internship is available as an option within the major. A minor in another academic area is also required.

The Bachelor of Arts degree in Information Science and Technology requires the same broad IST core as found in the B.S. degree. Four additional IST courses must be completed to provide depth in specific areas. IST majors seeking the B.A. degree are also required to complete two IST electives numbered 300 or above, two mathematics courses, and a minor in another academic area. An internship is available as an option within the major. The B.A. degree has the flexibility of allowing students to pursue a second major.

The Computer Science Department also offers the Bachelor of Science in Computational Science, a new discipline that combines course work in applied mathematics, computer science, and one of the scientific disciplines. A complete description of this program follows the Computer Science program descriptions above.

The Computer Science Department also offers the Bachelor of Science and the Bachelor of Arts degrees in Computer Science. For a complete description of this program, see the listing for Computer Science elsewhere in the Catalog.

The Computer Science Department provides course work in the area of Computer Information Systems for the School of Business. Students interested in combining computer science and business should consider this program of study.

The Computer Science Department provides course work in the area of Computer Engineering for the School of Engineering. Students interested in designing both software and hardware should consider this program of study.

Requirements for B.S. in Information Science and Technology

All students must complete Items 1-7 below as well as all CLA general education requirements:

1. IST Core (22 hours):
   - IST 126. Introduction to Information Science and Technology
   - CSC 204. Programming I
   - CSC 206. Visual Programming I
   - IST 220. Introduction to Databases
   - IST 221. Introduction to Networks
   - IST 222. Introduction to Operating Systems
   - TCO 285. Document and Web Design

2. Select one emphasis from the following: Programming, Internet Development, Computer Networks, or Database Development (3 courses: 9-10 hours)
   a. Programming
      - CSC 205. Programming II
      - IST 350. Software Engineering Tools
      - IST 463. Advanced Database Development
   b. Internet Development
      - IST 276. Introduction to Internet Programming
IST 351. Dynamic Content Delivery
IST 461. Web Server Issues

c. Computer Networks
IST 277. LAN & WAN Technologies
IST 352. Network Operating Systems Use and Integration
IST 462. Network Security

d. Database Development
IST 318. Database Administration
IST 351. Dynamic Content Delivery
IST 463. Advanced Database Development

3. Information Science and Technology Electives (4 courses: 12 hours)
One course from each of the four areas. (Students with an emphasis in Database Development must take IST 276 and one course each from three of the four listed areas.)

a. CSC 212. Programming Language (subtitle)
   IST 311. Scripting Languages
   IST 313. Visual Programming II

b. IST 316. Network Protocols
   IST 277. LAN and WAN Technologies
   CSC 360. Computer Networks

c. CSC 312. Database Systems
   IST 318. Database Administration

d. BUS 349. Management Information Systems
   IDM 470. Management Information Systems

4. Senior Design (2 courses: 6 hours). One course from each of the areas a and b:
   a. IST 470. Senior Project Design I
   b. IST 471. Senior Project Design II
      IST 472. Information Technology Internship

5. Mathematics (2 courses: 6 hours). Also satisfies Gen Ed Math requirement:
   MAT 126. Elementary Statistical Methods (or MAT 320)
   MAT 141. Calculus for the Social Sciences (or MAT 191)

6. Communication (1 course: 3 hours):
   TCO 341. Technical Communication

7. Satisfactory completion of one appropriate certification test selected and approved in coordination with faculty advisor.

Requirements for B. A. in Information Science and Technology

All students must complete Items 1-6 below as well as all CLA General Education requirements:

1. IST Core (22 hours)
   IST 126. Introduction to Information Science and Technology
   CSC 204. Programming I
   CSC 206. Visual Programming I
   IST 220. Introduction to Databases
   IST 221. Introduction to Networks


140 / MERCER UNIVERSITY
2. Select one of the following courses (1 course: 3 hours):
   CSC 205. Programming II
   IST 276. Introduction to Internet Programming
   IST 277. LAN & WAN Technologies

3. Information Science and Technology Electives (3 courses: 9 hours):
   One course from each of three areas:
   a. IST 311. Scripting Languages
      IST 313. Visual Programming II
   b. IST 316. Network Protocols
      CSC 360. Computer Networks
   c. CSC 312. Database Systems
      IST 318. Database Administration
   d. BUS 349. Management Information Systems
      IDM 470. Management Information Systems

4. Two additional IST electives numbered 300 or above (2 courses: 6 hours)

5. Mathematics (2 courses: 6 hours)
   MAT 126. Elementary Statistical Methods (or MAT 320)
   MAT 141. Calculus for the Social Sciences (or MAT 191)

6. Satisfactory completion of one appropriate certification test selected and approved in coordination with faculty advisor.

Requirements for the Minor in Information Science and Technology

A minor in IST consists of a minimum of 17 hours, including:
1. IST 126. Introduction to Information Science and Technology
2. At least six hours in IST courses numbered 300 or above

Note: CSC 204, CSC 205, and CSC 206 may be used in satisfying the requirement of at least 17 hours.

**IST 126. Introduction to Information Science and Technology** (3 hours)
Prerequisites: computer literacy and consent of the instructor.
This course serves as a broad introduction to information technology concepts. Course will include a laboratory component for practical experience in computer system design and troubleshooting as well as in introductory programming. Topics to be covered include information technology ethics, computer law and impact of technology on society, security and recovery systems, professional certification programs, computer networks, and introduction to programming. (Every semester)

**IST 220. Introduction to Databases** (3 hours)
Prerequisite: CSC 125 or IST 126.
This course serves as an introduction to database management systems and their role in information technology. The course will include a laboratory component for practical experience in several database systems. Topics to be covered include database building blocks, database design, and database implementation. (Every two years)
IST 221. Introduction to Networks  (3 hours)
Prerequisite: IST 126.
This course serves as an introduction to network fundamentals. Course will include a labora-
tory component for practical experience in network design and implementation. Topics to
be covered include networking terminology, network theory, standards bodies, network
models and cabling techniques. (Every year)

IST 222. Introduction to Operating Systems  (3 hours)
Prerequisite: IST 126.
This course serves as an introduction to computer operating systems from the user's and
administrator's points of view. Course will include a laboratory component for practical expe-
rience in operating system administration and use. Topics to be covered include interface
usage, user administration, file security, event tracking, scalability, troubleshooting and
resource sharing. (Every two years)

IST 276. Introduction to Internet Programming  (3 hours)
Prerequisite: CSC 204.
This course provides the foundational skills required for Internet programming. Course will
include a laboratory component for practical experience in language usage. Topics to be
covered include hypertext markup language, dynamic hypertext markup language, cascad-
ing style sheets, JavaScript and VBScript. (Every two years)

IST 277. LAN & WAN Technologies  (3 hours)
Prerequisite: IST 221.
This course expands upon the concepts introduced in IST 221 with emphasis placed upon
wide area networks and integration. Course will include a laboratory component for practi-
cal experience network design and implementation. Topics to be covered include communica-
tion mediums, Ethernet, token ring, ATM, frame relay, FDDI, wireless technologies,
VPN's, public and private network integration and data encryption. (Every year)

IST 285. Topics in Information Science and Technology  (1-4 hours)
Prerequisite: consent of the instructor.
An intensive study of some significant topic in Information Science and Technology not oth-
erwise covered in departmental course offerings. Variable credit, 1-4 hours. May be repeated
with different topics, but total credit may not exceed 8 hours. (Occasional)

IST 311. Scripting Languages  (3 hours)
Prerequisites: IST 222 and CSC 206, or CSC 205.
This course serves as a survey of computer scripting languages and techniques for various
computing environments. Course will include a laboratory component for practical experi-
ence in scripting application. Topics to be covered include overview of scripting languages;
DOS script fundamentals, Unix script fundamentals, and Internet scripting languages.
(Every two years)

IST 313. Visual Programming II  (3 hours)
Prerequisite: CSC 206.
This course expands upon the concepts started in Visual Programming I with a look at addi-
tional visual languages. Course will include a laboratory component for practical experience
in language usage. Topics to be covered include sequential files, database bound controls,
common Active X controls, creating Active X controls, using VBA in Access, MDI applica-
tions, creating class modules, the Windows API and VBScript. (Every two years)

IST 316. Network Protocols  (3 hours)
Prerequisites: IST 221 and IST 222, or CSC 360.
This course serves as a survey of the concepts, design and implementation of various net-
work protocols including TCP/IP, IPX/SPX, NetBEUI and AppleTalk. Course will include a laboratory component for practical experience protocol design and implementation. Topics to be covered include industry models, features, environmental concerns, and efficiency. (Every year)

**IST 318. Database Administration** (3 hours)
Prerequisite: IST 220.
This course provides the knowledge required to properly design, implement and maintain a complex database management system. Course will include a laboratory component for practical experience in database management using a modern database system. Topics to be covered include hardware configurations and considerations, logical database layouts, physical database layouts, managing the development process, monitoring multiple databases, database tuning, database security and auditing, optimal backup and recovery procedures, managing distributed databases and configuring client/server and Web environments. (Every two years)

**IST 350. Software Engineering Tools** (3 hours)
Prerequisite: CSC 205.
This course explores software engineering methods and tools for application development. Course will include a laboratory component for practical experiences using a variety of industry standard design tools. Topics to be covered include design and system organization, using and creating reusable libraries, building, testing, debugging, performance evaluation and simple interface design. (Every two years)

**IST 351. Dynamic Content Delivery** (3 hours)
Prerequisites: either CSC 205 or CSC 206, and either IST 276 or CSC 485 (Web Development).
This course explores the techniques used for server-side and client-side delivery of dynamic Internet content. Course will include a laboratory component for practical experience content design and delivery. Topics to be covered include WWW programming, client-side fundamentals, client-side programming, server-side fundamentals, and server-side programming. (Every two years)

**IST 352. Network Operating Systems Use and Integration** (3 hours)
Prerequisite: IST 277 or CSC 360.
This course is a survey of the use, administration and integration of various network operating systems. Course will include a laboratory component for practical experience in industry standard network operating system administration. Topics to be covered include installation, configuration, integration, remote access services and troubleshooting. (Every year)

**IST 461. Web Server Issues** (3 hours)
Prerequisites: IST 222 and IST 351, or CSC 460.
This course examines a variety of different Web servers with respect to capabilities, security, administration, and drawbacks. Course will include a laboratory component for practical experience in designing and maintaining a Webserver. Topics to be covered include strengths and weaknesses of various Web servers, Web server installations, Web server configuration, data security on Web servers, Webmaster responsibilities and management skills, and Web site scalability. (Every two years)

**IST 462. Network Security** (3 hours)
Prerequisite: IST 352 or CSC 360.
This course is a study of the many issues relating to network security. Course will include a laboratory component for practical experience in properly securing and monitoring a network. Topics to be covered include foot printing, scanning, enumeration, operating system
IST 463. Advanced Database Development  
(3 hours)
Prerequisites: IST 220 and IST 350, or IST 318 and IST 351, or CSC 312.
This course takes a detailed look at software development within various data dependent environments. Course will include a laboratory component for practical experience in database development using a modern database system. Topics to be covered include principles of object-oriented data models (classes, encapsulation, and object identity), schema evolution, views, authorization, transaction management and secondary storage management. (Every two years)

IST 470. Senior Project Design I  
(3 hours)
Prerequisite: completion of the first course in an IST emphasis.
This course is an advanced practicum in computer science. Students design, document, and test software systems for use in local industry, in university departments, or government laboratories. They gain practical experience by working closely with project sponsors from these organizations and review ongoing projects. Students also gain extensive experience in oral and written communication through presentations throughout the software lifecycle. (Every year)

IST 471. Senior Project Design II  
(3 hours)
Prerequisite: IST 470.
This course provides the student with the opportunity for actual implementation of projects developed within IST 470. Team-based project implementation will be emphasized. (Every year)

IST 472. Information Technology Internship  
(3 hours)
Prerequisite: IST 470.
This course is implemented as a directed internship within the local Information Technology community. Students will gain valuable hands-on experience with the knowledge learned during their academic career. (Every year)

IST 485. Topics in Information Science and Technology  
(1-4 hours)
Prerequisite: consent of the instructor.
An intensive study of some significant topic in Information Science and Technology not otherwise covered in departmental course offerings. Variable credit, 1-4 hours. May be repeated with different topics, but total credit may not exceed 8 hours. (Occasional)

CRIMINAL JUSTICE (CRJ)

For a description of the program of study in this area, the requirements for the minor, and of the courses offered, see the heading SOCIOLOGY in this catalog.

EARTH AND ENVIRONMENTAL SCIENCES (EES)

Michael K. Moore, Chair/Associate Professor
Robert J. Hargrove and Eric Klingelhofer, Professors
Gregory Domin, Allen Lynch and Alan F. Smith, Associate Professors
Heather Bowman Cutway, and Fletcher Winston, Assistant Professors
Daniel Fischer, Senior Lecturer

The Department of Earth and Environmental Sciences offers two majors: (1) the Bachelor of Science in Earth and Environmental Sciences and (2) the Bachelor of Arts in
Earth and Environmental Studies. Both programs are interdisciplinary, using principles of biology, chemistry, geology, physics, mathematics, sociology, political science, and economics to address scientific and public policy issues related to human interactions with terrestrial, aquatic and atmospheric components of the biosphere.

The curriculum of the B.S. in Earth and Environmental Sciences is designed to provide students with the methods and processes of applying the basic sciences of biology, chemistry, geology, and physics to scientific problems of the environment. Successful students will gain an extensive exposure to the interconnectedness of these natural sciences and obtain a breadth of knowledge that will permit them to make informed decisions about environmental issues. This degree program prepares students for careers in fields such as air and water quality management, fish and wildlife conservation, environmental planning, hazardous waste management, and energy policy development. Environmental scientists are in demand in many public and private sector fields—as agencies need experts to develop regulations, conduct tests, and assure environmental compliance—and graduates may work as research scientists, laboratory technicians, or project managers.

The curriculum of the B.A. in Earth and Environmental Studies is designed to provide students with the methods and processes of applying the basic social sciences of sociology, political science, and economics to policy related problems of the environment. Successful students will gain fundamental understanding of the basic social sciences and related natural sciences, becoming proficient in applying the principles of these disciplines to formulation, analysis, and appropriate implementation of environmental policy from local to international levels. This degree prepares students for careers in environmental management, policy development, education, government agencies, and law.

Students in both majors are required to complete Introduction to Environmental Science (EES 150), a foundational course in the discipline; Geographic Information Systems (EES 330), a course providing modern analytical techniques for environmental problems; and Senior Seminar in Environmental Science (EES 495), in which students on both major tracks work jointly on a contemporary problem of environmental concern.

The Bachelor of Science in Earth and Environmental Sciences consists of 34 hours of EES courses and 28 hours from the sciences and mathematics.

1. Science and Mathematics Core (28 hours)
   a. CHM 111 and 112 (or CHM 115 and 241); b. BIO 211 and 212; c. PHY 141/121L (or PHY 161/121L); d. MAT 126; e. ECN 150 (or ECN 151)
2. Earth and Environmental Studies (3 hours)
   EES 304, 325, 344, 345, 360, 383, 390, or 452
3. Earth and Environmental Sciences (31 hours)
   EES 105, 150, 330, 370, and 495
   Twelve hours from: EES 210, 220, 251, 300, 310, 315, 351, 352, 381, 391, 440, 470, 480, or 490

The Bachelor of Arts in Earth and Environmental Studies consists of 29 hours of EES courses and 15-17 hours from sciences/mathematics and social sciences.

1. Science/Mathematics and Social Science Core (15-17 hours)
   a. CHM 111 (or CHM 115); b. BIO 106 (or EES 105); c. MAT 126; d. two courses from ECN 150 (or ECN 151), POL 200, SOC 101
2. Earth and Environmental Studies (18 hours)
   Eighteen hours from: EES 104, 304, 325, 344, 345, 360, 381, 383, 390, 452, 490
   (four hours maximum of EES 490)
3. Earth and Environmental Sciences (11 hours)
   EES 150, 330, and 495
A minor in Earth and Environmental Sciences consists of a minimum of 15 hours of EES courses, including EES 150 and at least 6 hours of EES courses numbered 300 or above.

**Secondary Teacher Certification Program in Earth and Space Science**

Teacher certification in earth and space science (6-12) is available to earth and environmental sciences (B.S. program) majors who select EES 220 or EES 310 as one of their earth and environmental sciences courses and who also complete EES 110 (Meteorology) and PHY 115 (Descriptive Astronomy). Students planning to teach earth and space science in secondary schools should notify their advisor and contact the secondary education advisor in Tift College of Education. Required courses in education include EDUC 210, 220, 256, 283, 357, 398, 399, 406, 423, 469, 476, 485, and 492. Please consult the TIFT COLLEGE OF EDUCATION section of this catalog for more details. Georgia Professional Standards Commission approval of this new certification option is pending.

**EES 103. The Ocmulgee River Floodplain** (2 hours)
Prerequisite: SCI 105.
An integrated study of natural form and function of the Ocmulgee River floodplain and the interconnectedness between the environment and human society. The course is taught as a seven-week module. (Occasional)

**EES 104. Environmental Controversies** (2 hours)
Prerequisite: SCI 105.
A critical evaluation of the many perspectives of contemporary environmental issues including such topics as global warming, deforestation of tropical rainforest, and environmental racism. The course is taught as a seven-week module. (Occasional)

**EES 105. Geology** (4 hours)
An introductory course in geology, including a study of the structure and material of the earth's crust: the processes that have given the rocks and minerals their composition, structure, and distribution; the internal structure of the earth; the energy and forces responsible for earthquakes, volcanoes, and mountain-building; the forces that have otherwise shaped the landscape; and a brief history of life on earth as revealed in the fossil record. A lecture and laboratory course. (Every year)

**EES 110. Meteorology** (4 hours)
An introductory, basically qualitative approach to the science of weather and climate. Includes the study of cloud types and their causes; air masses, their origin and movement; fronts, frontogenesis, and frontal weather; tornadoes, hurricanes, and other phenomena. A lecture and laboratory course. (Every year)

**EES 150. Introduction to Environmental Science** (4 hours)
A study of the interrelationships of biological cycles and processes with the physical and geological cycles that drive terrestrial and aquatic ecosystems. Emphasis will be placed on understanding the form and function of the natural environment, modifications placed on natural systems by human activities, and current strategies to minimize human impacts on natural systems. A laboratory/field trip course. (Every semester)

**EES 210. Environmental Geology** (4 hours)
Prerequisite: EES 105 or consent of the instructor.
This course focuses on the influence that geologic forces have on the existence and development of physical and biological communities. Topics include geologic hazards, preservation of natural geologic habitats, and pertinent political/economic/social considerations. The course is designed particularly for students pursuing majors or minors in the earth sciences, engineering, or other disciplines requiring specific knowledge of the above described interrelationships. A lecture and laboratory course. (Every two years)
EES 220. Oceanography (4 hours)
Prerequisites: CHM 112, and PHY 141/121L or 161/121L.
The basic principles and concepts needed to give an understanding of the general makeup of the world's oceans and how they are investigated by oceanographers. Physical, chemical, biological and environmental aspects of oceanography will be presented. A lecture and laboratory course. (Occasional)

EES 251. Water and Wastewater Analysis (4 hours)
Prerequisites: CHM 112 and EES 150.
A study of the quantitative techniques used for the determination of water quality with an overview of pertinent federal and state legislation pertaining to water quality. Includes traditional wet chemistry techniques used in the characterization of ambient, potable and municipal wastewater supplies with emphasis on development of quantitative laboratory skills. A lecture, laboratory and field course. (Occasional)

EES 300. Invertebrate Zoology (4 hours)
(Same as BIO 300)
Prerequisite: BIO 212.
A systematic study of the invertebrate taxa with emphasis on phylogeny, comparative morphology and physiology, behavior, and ecology. A library research paper is required. A lecture and laboratory course. (Every two years)

EES 304. Introduction to Social Science Research Methods (4 hours)
(Same as SOC 304)
Prerequisite: SOC 101; MAT 126 is recommended.
In this course students are introduced to fundamental ideas and methods of social science research, including the link between theory and research, the evaluation of research literature, the basics of research design, and the principle elements of surveys, experiments, and field research. Students will complete laboratory exercises in these areas and will learn basic descriptive statistics through the use of a standard statistical analysis program (e.g. SPSS). (Every year)

EES 310. Hydrogeology (4 hours)
Prerequisites: CHM 111/112 or 115, EES 150.
A study of the movement of water through the hydrological cycle and the geological factors that control the occurrence, movement, and chemical composition of surface and groundwater systems. This course is designed to permit a quantitative understanding of various components of the hydrological cycle, essential physical concepts governing groundwater flow, and natural and anthropogenic controls on water chemistry during passage through the hydrosphere. A laboratory and lecture course. (Every two years)

EES 315. Field Studies in Environmental Science (3 hours)
(Same as BIO 315)
The biological study of a given region of the world through travel, filed work, reading, and lecture. Specific topics (e.g., ecology, animal behavior, zoology, botany, and/or environmental issues) will reflect the expertise of the instructor and the characteristics of the region. As appropriate, field experience will be supplemented by informal lectures, seminars, demonstrations, discussions, experimentation, and directed study. A library research paper as well as other forms of writing will be required. A lecture/field course. (Every year)

EES 325. Urban Ecology (3 hours)
(Same as SOC 325)
Prerequisite: SOC 101.
The focus of “urban ecology” is the synergistic relationship between people and the urban
environment (social, physical and institutional), to include the essential bond between human and natural environments. It includes the study of the historical development of cities, current urbanization trends and impacts, the critical role of the local community in the development of human relations and institutions, community leadership and organization, and the relationship of the urban and natural environment. (Every year)

EES 330. Introduction to Geographic Information Systems (4 hours)
Prerequisite: EES 150 or CSC 125 or permission of the instructor.
The study of computer-based technology for creating geographic data, managing large quantities of digital data, integrating information from different sources, visualizing scenarios, and analyzing geographic data. The theoretical component of the course emphasizes the fundamentals of cartography and structure and editing of spatial data. Successful students will be able to apply this knowledge to demonstrate how GIS can be used to propose hypothetical solutions to various environmental problems. A lecture and laboratory course. (Every year)

EES 344. Environmental Ethics (3 hours)
Prerequisite: either one course in PHI or EES 150.
An examination of ethical issues and theories as they apply to environmental concerns, together with a survey of emerging environmental philosophies. (Occasional)

EES 345. Environmental Justice
(Same as AFR/POL/SOC 345)
This course examines the impact of institutional racism on environmental and health policies, industrial practices, government regulations and rule making, enforcement, and overall quality of life in people-of-color communities. The course will examine the nexus between environmental protection and civil rights, and the impact of the environmental justice national environmental groups. (Every two years)

EES 351. Environmental Chemistry
(Same as CHM 351)
Prerequisite: CHM 241.
A study of the physicochemical properties of substances that determine their fate and transport in the environment. Inorganic and organic substances will be examined as they are deposited, transported, transformed, and stored in the soil/sediment, water, and atmosphere. Techniques for the sampling and analysis of nutrients, toxic metals, and organic priority pollutants will be examined. A lecture, laboratory and field course. (Occasional)

EES 352. Environmental Health and Toxicology (4 hours)
Prerequisites: EES 150 and BIO 212.
A study of material and energetic substances produced by humans, and the adverse effects of those substances on the environment. Dynamics of these substances, including their effects on living organisms, are examined. A lecture and laboratory course. (Occasional)

EES 360. Environmental Sociology
(Same as SOC 360)
Prerequisite: EES 150 or SOC 101
This course uses the sociological perspective to examine environmental problems on the local, national, and global level. It explores how culture and social institutions affect the environment as well as the distribution of environmental problems according to socio-economic conditions. This course also examines the environmental movement and its potential to address environmental problems. (Every two years)
EES 370. Principles of Ecology (4 hours)
(Same as BIO 370)
Prerequisite: BIO 212.
A study of relationships between organisms and their physical and biological environment. Ecological relationships will be considered from the perspectives of individuals, populations and communities. Work in the field is required. Formal laboratory writing is required. A lecture, laboratory and field course. (Every year)

EES 381. Urban Ecosystems (3 hours)
(Same as BIO 381)
Prerequisites: BIO 220/211 or EES 150.
A study of the relationship between the urban environment and the associated biological, physical, social and political systems. Emphasis will be placed on ecological principles and processes as they relate to the urban ecosystem including the impacts of urbanization on biodiversity, air and water quality, production and management of waste, energy use and land use patterns. The historical development of cities and current urbanization trends will be considered with a focus on urban sprawl. Lecture/discussion course. (Every two years)

EES 383. AIDS: Narratives of Disease (3 hours)
(Same as WGS 383)
This interdisciplinary course gives students sufficient information for them to make informed decisions about their behaviors and their lives. Students will confront and grapple with the biological, social, historical, environmental, psychological, and cultural issues which the AIDS pandemic represents. The diverse populations affected by AIDS – gays, children, women, Africans – will be discussed. AIDS and other historic plagues raise numerous moral and ethical issues regarding public health, resource allocation, individual versus group rights, and the sweeping effects of trying to keep people healthy. Books, articles, speakers, films, and classroom discussion serve as the texts for the course. (Occasional)

EES 390. Special Topics: Environmental Studies (1-3 hours)
A study of some significant topic in environmental studies not covered in the regular course offerings. May be taken more than once for a maximum of 6 credits. (Occasional)

EES 391. Special Topics: Environmental Science (1-4 hours)
A study of some significant topic in environmental science not covered in the regular course offerings. May be taken more than once for a maximum of eight credits. (Every year)

EES 440. Aquatic Biology (4 hours)
(Same as BIO 440)
Prerequisite: BIO 212.
Aquatic ecosystems encompass a wide spectrum of habitats, ranging from the world's major oceans and rivers down to the smallest tidal pools and mountain streams. Course content will reflect this diversity as well as the fundamental principles unifying these systems, emphasizing the adaptations of representative communities to the physicochemical characteristics of the varied habitats. The laboratory component will combine field trips to local middle Georgia aquatic environments with wet labs, where collected plant and animal samples will be identified. Experimental design and formal laboratory writing are required. A lecture, laboratory, and field course. (Every two years)

EES 452. Environmental Economics (3 hours)
(Same as ECN 452)
Prerequisites: ECN 150, 151, and one ECN course numbered 300 or higher, or permission of instructor.
An examination of the interrelationship which exists between the physical environment and the economic system. Models of general equilibrium analysis, welfare economics, and property rights are developed; these are supplemented by readings from scholarly journals. Emphasis is placed upon the issue of free markets' ability to allocate scarce environmental resources efficiently (including intertemporally) among competing uses. (Every three years)

**EES 480. Conservation Biology** (4 hours)
(Same as BIO 480)
Prerequisites: BIO 211 and 212
This course is a study of the concepts of conservation biology and the application of ecological principles and techniques to the protection and study of biodiversity. Subjects include threats to biological diversity, conservation at the population and species level, and practical applications of conservation biology. A lecture and laboratory course. (Every two years)

**EES 490. Internship in Environmental Science** (3-9 hours)
Prerequisites: senior status and permission of the instructor.
Provides supervised practical experience emphasizing hands-on environmental education in a field approved by the coordinator of the environmental science program. The instructor in the environmental field must approve and supervise the student project. (Every semester)

**EES 495. Senior Seminar in Environmental Science** (3 hours)
Prerequisites: senior status and permission of instructor.
An interdisciplinary study of a contemporary topic not covered in depth in the curriculum. Majors will present papers on research and write a review of a significant topic in environmental science. A lecture/discussion course. (Every year)

**ECONOMICS (ECN)**
(See also EUGENE W. STETSON SCHOOL OF BUSINESS AND ECONOMICS for a description of the Bachelor of Business Administration degree. For that degree, a Managed Academic Path to Success program of study can be structured with an emphasis in Economics.)

Allen K. Lynch, Chair/Associate Professor
William S. Mounts, Jr., Professor
Scott Beaulier, Angela K. Dills and Sean E. Mulholland, Assistant Professors

The Economics Department offers a Bachelor of Arts degree that provides students with a framework for examining the world in which they live and work. Economics is a way of thinking, developed by studying the foundations of microeconomic and macroeconomic theories and by applying them to various contemporary issues and policies. The economics major prepares students for entry into professional positions in private firms, government, or not-for-profit organizations, and it creates a foundation for successful future graduate studies in many areas. Students may take no more than 45 semester hours within the Department.

Majors may attain Departmental Honors by attaining a grade point average of 3.75 or higher in all courses taken in the major (transfer students must attain a 3.75 or higher grade point average on all courses taken at Mercer in the major and a combined grade point average of 3.75 or higher on all courses taken in the major at Mercer and at other institutions).

Requirements for an economics major: MAT 191 or 141 and MAT 126 or 320 are required of all majors. The major consists of 27 semester hours: ACC 204, ECN 150, 151,
301, 302, 303, and three additional economics courses selected with the approval of the department chair. At least 15 hours must be completed in economics courses numbered above 300. In addition, students must sit for an oral examination during the last semester of their senior year. Students should see the Discipline Coordinator (in the Stetson School of Business and Economics) to schedule a time for the exam.

Requirements for a minor in economics: The minor consists of ECN 150 and 151, MAT 126 or 320, and three elective courses from the Department of Economics, including 6 hours in courses numbered 300 or above. The elective courses should be chosen in consultation with the chair or other faculty within the Department.

**ECN 150. Principles of Microeconomics** (3 hours)
Prerequisite: mathematics competency or completion of a college mathematics course.
A study of the basic tools of economic analysis and principles necessary to appreciate economic relationships, business behavior, and consumer behavior. Special emphasis will be given to the areas of supply and demand, marginal analysis, and the theory of the firm. (Every semester)

**ECN 151. Principles of Macroeconomics** (3 hours)
Prerequisite: mathematics competency or completion of a college mathematics course.
The study and analysis of national income accounting, income determination theory, money and monetary policy, fiscal policy, international trade, and the theory of economic growth. Special attention will be given to current economic conditions and trends. (Every semester)

**ECN 301. Money, Credit, and Banking** (3 hours)
Prerequisites: ECN 150, 151, and junior status (or consent of instructor).
A functional study of monetary, banking, and credit structures; including a critical examination of monetary theory and policy recommendations. (Every year)

**ECN 302. Intermediate Microeconomic Theory** (3 hours)
Prerequisites: ECN 150, 151, and junior status (or consent of instructor).
A study of price and distribution theory relevant to households, firms, and industries in perfect and imperfect competition. Theories of factor prices and general equilibrium are also examined. (Every year)

**ECN 303. Intermediate Macroeconomic Theory** (3 hours)
Prerequisites: ECN 150, 151, and junior status (or consent of instructor).
A study of the forces determining the level of income, employment, and prices. Monetary theory and theory of economic fluctuations are reviewed, and public policies dealing with level of income and with aggregate economic welfare are examined. (Every year)

**ECN 353. Introduction to Econometrics** (3 hours)
Prerequisites: ECN 150, ECN 151, MAT 126 (or 320), MAT 141 (or 191), and junior status (or consent of instructor).
A study of the methods of empirically verifying economic theory. Statistical inference applied to economic models, both macro and micro. Estimation of single and multiple equation models. A partial listing of topics covered includes: stochastic equations, residuals, parameter estimation via least squares and other methods, the coefficient of determination, multicollinearity, serial correlation, the identification problem, and estimation of simultaneous equation macro models of the U. S. economy. (Every two years)

**ECN 432. Urban and Regional Economics** (3 hours)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
A study of poverty, housing, land use, transportation, and public services, with special ref-
erences to social problems arising from the uneven distribution and immobility of resources.
(Every three years)

**ECN 441. International Economics** (3 hours)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
A study of the theory and mechanisms of international trade, and the international monetary mechanism. Barriers to the movement of goods and services and recent developments in the international organizations aimed at relaxing restrictions are also studied. Credit may not be earned in both ECN 441 and ECN/FIN 444. (Every year)

**ECN 443. Labor Economics** (3 hours)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
A study of the major problems of the United States and the social and economic policies affecting the labor movement; the problems of labor organization and trade unionism; recent and pending legislation in the states and nation. (Every two years)

**ECN 445. Industrial Organization** (3 hours)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
A study of industrial organization and government regulation of business enterprise; market structures, conduct, and performance; antitrust. (Every two years)

**ECN 448. Seminar in Economic Growth** (3 hours)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
A seminar in economic growth. Areas of emphasis are as follows: nature of growth; what is not growth; importance of growth; the physical environment issue; growth over time and among nations; sources of growth; theories of growth and supporting empirical evidence; interaction of growth with economic stability and income distribution; and institutional, monetary, and fiscal policies related to growth. (Occasional)

**ECN 452. Environmental Economics** (3 hours)
(Same as EES 452)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
An examination of the interrelationship which exists between the physical environment and the economic system. Models of general equilibrium analysis, welfare economics, and property rights are developed; these are supplemented by readings from scholarly journals. Emphasis is placed upon the issue of free markets' ability to allocate scarce environmental resources efficiently (including intertemporally) among competing uses. (Every three years)

**ECN 477. Special Topics in Economics (Subtitle)** (1-3 hours)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
An intensive study of some significant topic in economics not otherwise covered in the School's course offerings. Topics will be chosen in consultation with students who register for the course. (Occasional)

**ECN 478. Research in Economics (Subtitle)** (1-3 hours)
Prerequisites: ECN 150, ECN 151, and one ECN course numbered 300 or higher, or permission of instructor.
A research-oriented course focusing on an important topic in economics not otherwise cov-
ered in the School's offerings. The course features student research, independent study, and discussion. (Occasional)

**ECN 482. Economics Senior Oral Examination** *(0 hours)*  
Required economics senior oral examination. Students should enroll in this course during the semester they plan to take the oral examination required of economics majors. Graded on S/U basis. (Every semester)

**ECN 494. Honors Thesis** *(3 hours)*  
Prerequisite: admission to the honors program.  
Individual research leading to the completion of an honors thesis. Students admitted into the Honors Program register for one credit hour in each of three successive semesters (including summer). Only grades of satisfactory or unsatisfactory will be assigned. (Occasional)

**ENGLISH (ENG)**

Gary A. Richardson, *Chair/Professor*  
Stephen E. Bluestone, Chester J. Fontenot, Jr., Richard C. Fallis, Jonathan C. Glance, and Mary Alice Morgan, *Professors*  
Gordon R. Johnston, Andrew Silver, and Anna K. Silver, *Associate Professors*  
David A. Davis and Tia Gafford Williams, *Assistant Professors*

The English Major Literature Track consists of thirty-three (33) hours. At the 200-level, those pursuing the Literature Track or the Secondary Certification Program in English Track are expected to successfully complete ENG 263 and one 200-level genre or thematically organized course (233, 234, 235, 236, 237 or 240). At the 300-level, those pursuing the Literature Track or the Secondary Certification Program in English are expected to successfully complete ENG 301, either 332 or 333, one course in English literature before 1700 (330, 335, 340, or 342), one course in British literature 18th, 19th, and early 20th centuries (346, 347, 348, or 349), one course in American literature 18th, 19th, and early 20th centuries (352, 353, 354, 357 or 359), one course in British and/or American 20th century (358, 360, 362, 364, 366, 367, 368 or 369), and two electives number 300 or above. ENG 380 might fit in any of the above categories depending upon topic. All Literature Track and Secondary Certification Program in English Track students will complete their program by taking 480S.

The English Major Creative Writing Track consists of thirty-six (33) hours. All creative writing students will successfully complete a program devoted to literary history and background reading which will include at the 200-level: ENG 263 and one 200-level genre or thematically organized course (233, 234, 235, 236, 237 or 240). At the 300-level, those pursuing the Creative Writing Track are expected to successfully complete ENG 301, either 332 or 333, one course in British literature 18th, 19th, and early 20th centuries (346, 347, 348, or 349), one course in American literature 18th, 19th, and early 20th centuries (352, 353, 354, 357 or 359), and one course in British and/or American 20th century (358, 360, 362, 364, 366, 367, 368 or 369). Creative Writing students wishing to emphasize poetry will successfully complete 308, 309, 311, and either 485 (Sams Seminar in Poetry) or 487. Creative Writing students wishing to emphasize fiction will successfully complete 308, 309, 312, and either 485 (Sams Seminar in Fiction) or 487. Creative Writing students wishing to emphasize playwriting will successfully complete 308 or 309, ENG/CTA 371, ENG 372, and (Sams Seminar in Playwriting) or 487. Students seeking a generalist writing emphasis must pair ENG 311 with the ENG 485 (Sams Seminar in Fiction or Drama); or ENG 312 with the ENG 485 (Sams Seminar in Poetry or Drama); or ENG/THR 371 with the ENG 485 (Sams Seminar in Fiction or Poetry).
In addition to the course requirements detailed above, majors on the Literature Track may attain Departmental Honors in English by successfully completing the above requirements plus ENG 329 and 488 under the direction of an Honors Committee composed of the Chair and two members of the English Department selected by the student. Students should register for ENG 488 in the spring semester of their junior year and complete the honors paper by March 15 of the senior year.

In addition to the course requirements detailed above, majors on the Creative Writing Track may attain Departmental Honors in English by submitting a portfolio by March 15 of the senior year to be juried by outside readers. The portfolio must be judged “outstanding” to receive honors.

A grade point average of 3.50 in upper-division English classes is required for honors on all major tracks.

The Ferrol A. Sams, Jr., Distinguished Chair of English, established in 1994, brings a respected fiction writer, poet, or playwright to Mercer during spring semester. The distinguished writer-in-residence conducts one seminar (ENG 485) and offers readings and lectures during his/her appointment.

A minor in English consists of five English courses above ENG 109, including at least one course from 233, 234, 235, 263, 264 or 265, and three courses numbered 300 or above.

Secondary Teacher Certification Program in English

Teacher certification in English (6-12) is available to English majors who successfully complete the regular Literature Track program and ENG 323 or 325. Students planning to teach English in secondary school should notify their advisor and contact the secondary education advisor in Tift College of Education. Required courses in education include EDUC 210, 220, 256, 283, 357, 398, 399, 406, 468, 469, 476, 485, and 492. Please consult the TIFT COLLEGE OF EDUCATION section of this catalog for more details.

The first semester of First Year Seminar or the equivalent is prerequisite to all other English courses. Either English 233, 234, 235, 236, 237, 240, 263, 264, 265 or an equivalent is prerequisite to all upper-division English courses.

ENG 108. Composition I (4 hours)
Prerequisite: Consent of the English Department Chair
This course focuses on the expository essay, the basic form of college writing. It includes an introduction to research. The student is expected to be familiar with standards of correctness, including punctuation and grammar. (Every fall semester)

ENG 109. Composition II (4 hours)
Prerequisite: Completion of ENG 108 with a grade of “C” or higher (or exemption from ENG 108) and consent of the English Department Chair.
This second composition course focuses on critical and interpretive essays on poetry, fiction, and drama. (Every spring semester)

ENG 233. The Study of Drama (3 hours)
A study of drama from various periods with emphasis on forms, ideas, techniques, and meaning. The student will be required to develop an ability to read, think, and write critically. (Every year)

ENG 234. The Study of Fiction (3 hours)
A study of novels and short stories from various periods with emphasis on forms, ideas, techniques, and meaning. The student will be required to develop an ability to read, think, and write critically. (Every semester)
ENG 235. The Study of Poetry (3 hours)
A study of poetry from various periods with emphasis on forms, ideas, techniques, and meaning. The student will be required to develop an ability to read, think, and write critically. (Every year)

ENG 236. The Study of a Literary Theme: (variable topic) (3 hours)
This course examines a particular theme in various literary forms. In addition to learning how to read a literary text closely and carefully, the student will be required to develop an ability to read, think, and write critically. (Every semester)

ENG 237. Literature and Film (3 hours)
The critical study of film as a literary text. Selected novels and their film adaptations will be studied in order to explore the differences and similarities between written and cinematic forms. (Every other year)

ENG 238. Multicultural Women Writers (3 hours)
(Same as WGS 240)
Prerequisite: FYS 101
An analysis of the writings of contemporary American women of diverse cultural backgrounds. Reading and discussing novels, short stories, and poetry, this course will explore the ways that these writers navigate being American and being culturally “other” within a homogenizing “melting pot” society. (Every two years)

ENG 263. Survey of English Literature: Beginnings through the Eighteenth Century (3 hours)
A chronological survey of English literature from the Anglo-Saxon period through the eighteenth century. Required for the English major. (Every semester)

ENG 264. Survey of English Literature: Romanticism to the Present (3 hours)
A chronological survey of English literature from the Romantic Age to the contemporary period. (Every semester)

ENG 265. Survey of American Literary Masters (3 hours)
A study of major American writers from the colonial period to the present. (Every semester)

ENG 301. Introduction to Literary Studies (3 hours)
This course introduces students to literary criticism and the methodologies of literary scholarship. It is intended to prepare English majors for advanced work in upper-division courses. Required for the English major. (Every semester)

ENG 307. Essay Writing (3 hours)
Writing in a variety of essay forms with special emphasis on the relationships among writer, subject, and reader. (Every three years)

ENG 308. Introduction to Poetry Writing (3 hours)
Prerequisite: Consent of the Instructor
The student will take a close look at the conventions and techniques of traditional and contemporary poetry as models for writing original poetry. Each student will be encouraged to use his or her own experience to discover and develop an individual and authentic voice as a poet. (Every year)

ENG 309. Introduction to Fiction Writing (3 hours)
The student will take a close look at the conventions and techniques of traditional and contemporary fiction as models for writing original fiction. Each student will be encouraged to
use his or her own experience to discover and develop an individual and authentic voice as a writer. (Every year)

**ENG 311. Poetry Workshop** (3 hours)
Prerequisite: Consent of the instructor.
Students who have developed a facility in poetry writing will work together in a workshop setting. Exercises, assignments, readings, group critiques, and individual conferences will be used to support the student's efforts to complete an agreed upon poetry manuscript. (Every year)

**ENG 312. Fiction Workshop** (3 hours)
Prerequisite: Consent of the instructor.
Students who have developed a facility in fiction writing will work together in a workshop setting. Exercises, assignments, readings, group critiques, and individual conferences will be used to support the student's efforts to complete an agreed upon fiction manuscript. (Every year)

**ENG 323. History of the English Language** (3 hours)
The history of modern British and American English is traced from the Indo-European beginnings through the Anglo-Saxon, Medieval, and Modern Periods to the present trends in linguistic study. (Occasional)

**ENG 325. Contemporary Theories in Linguistics** (3 hours)
This course includes the study of phonetics, morphology, structural linguistics, and transformational grammar. It is intended to acquaint students with the recent scientific approach to the study of English grammar. (Every year)

**ENG 329. Twentieth-Century Literary Theory and Criticism** (3 hours)
A study of literary theory and criticism in the twentieth century, focused on major groups and movements. Regularly included are such schools as Formalism, Structuralism, Psychoanalysis, Feminism, and Post-Structuralism. (Every year)

**ENG 330. Chaucer** (3 hours)
This course focuses primarily upon The Canterbury Tales with some work on Troilus and Criseyde and minor poems. Attention is given to Middle English pronunciation and poetics. Lectures, reports, and collateral readings will concern the Medieval background. (Every two years)

**ENG 332. Shakespeare I: Histories and Comedies** (3 hours)
A study of several histories and comedies. Plays to be considered may include Richard II, Henry IV, Henry V, A Midsummer Night's Dream, The Merchant of Venice, Twelfth Night, and others. (Every year)

**ENG 333. Shakespeare II: Tragedies and Romances** (3 hours)
A study of selected tragedies and romances. Plays to be considered may include Romeo and Juliet, Hamlet, King Lear, Othello, Macbeth, The Winter's Tale, The Tempest, and others. (Every year)

**ENG 335. Milton** (3 hours)
A study of Paradise Lost, Paradise Regained, and Samson Agonistes, as well as selections from the minor poems and prose works. (Every two years)
ENG 340. Sixteenth-Century Literature (3 hours)
A survey of the literature of the English Renaissance. Special attention will be given to the work of Edmund Spenser, Christopher Marlowe, Sir Philip Sidney, and Sir Francis Bacon, as well as to the non-dramatic poetry of Shakespeare. (Every two years)

ENG 342. Seventeenth-Century Literature (3 hours)
A survey of the religious and secular literature of seventeenth-century England, up to 1660, including such authors as Donne, Herbert, Jonson, Herrick, and Marvell. (Every two years)

ENG 346. Eighteenth-Century Literature (3 hours)
A study of the major figures from Dryden to Goldsmith with special emphasis on the comic ironic-satiric tradition in prose and on the rhetorical and empirical traditions in poetry. Lectures and collateral reading provide background for understanding the social, philosophical, religious, and aesthetic implications of literature. (Occasional)

ENG 347. Poetry and Prose of the Romantic Movement (3 hours)
A study of the poetry and prose of the English Romantic period with chief emphasis upon six major figures-Blake, Wordsworth, Coleridge, Byron, Shelley, Keats. (Every two years)

ENG 348. Victorian Poetry and Prose (3 hours)
A study of the major poets and prose writers of the Victorian age in England, with particular attention to Tennyson, Browning, Arnold, Carlyle, Ruskin, and Hopkins. Selected works from the pre-Raphaelites and from the aesthetic and decadent movements of the 1880s and 90s will also be read. (Every two years)

ENG 349. The English Novel (3 hours)
A survey of the development of the novel from the 1720s to the 1880s with special emphasis on Richardson, Fielding, Austen, Dickens, Eliot, Hardy, and other selected writers. (Every two years)

ENG 352. Romanticism In American Literature (3 hours)
The origin, growth, and impact of the Romantic movement in American literature as revealed by an examination of the major writers of the period such as Poe, Hawthorne, Melville, Emerson, Thoreau, and Whitman. (Every two years)

ENG 353. Realism In American Literature (3 hours)
A study of the movement in American literature from Romanticism to Realism with its accompanying emphasis on pragmatic, realistic, or naturalistic interpretations. Major consideration will be given to such writers as Dickinson, Twain, James, Howells, and Crane. (Every two years)

ENG 354. The American Novel (3 hours)
A survey of the development of the American novel from its beginnings to the early twentieth century to show how the American novel has become both uniquely American and a major form of American letters. Hawthorne, Melville, Howells, James, Dreiser, and others will be studied. (Every two years)

ENG 357. Literature of the South to 1945 (3 hours)
A study of southern literature from the antebellum period to the end of World War II. The course includes such writers as the Frontier Humorists, Twain, Ransom, Tate, Faulkner, Warren, Wolfe, and Toomer. Topics such as tradition, change, and race relations are considered. (Every two years)
ENG 358. Literature of the South after 1945 (3 hours)
A study of southern literature in the contemporary period. The course includes such writers as O'Connor, Welty, Percy, Ellison, Walker, and Dickey and selected contemporary southern poets and dramatists. Topics such as tradition, change, and race relations are considered. (Every two years)

ENG 359. African American Literature:
Beginnings to 1965 (3 hours)
(Same as AFR 359)
A survey of classic writings in African American literature presented in their historical contexts. The course includes essays analyzing the political and social status of African Americans at various points during the period and representative works by major poets and fiction writers. Reading lists vary from year to year but generally include such authors as Brown, Chestnut, Harper, the Grimkes, Larsen, Bontemps, DuBois, Washington, Harlem Renaissance writers, Ellison, and writers of the early Civil Rights era. (Every year)

ENG 360. African American Literature:
1965 to Present (3 hours)
(Same as AFR 360)
A chronological study of the development of African American literature since 1965. The course attempts to place African American literature in the context of world and American literature by examining prevalent themes and traditions as presented in fiction, poetry, and drama. Reading lists vary from year to year, but generally include such authors as Wright, Baldwin, Morrison, Angelou, Sanchez, Baraka, McMillan, Walker, and Wideman. (Every year)

ENG 362. Modern Poetry: 1900 to 1965 (3 hours)
A study of major English and American Poets and aesthetic movements from 1900-65. Topics include aestheticism, Celtic Renaissance, imagism, vorticism, and objectivism. Poets usually include Yeats, Eliot, Pound, Frost, and Stevens as well as others. (Every two years)

ENG 364. Modern Drama: 1880 to 1965 (3 hours)
A study of drama in English from the emergence of realism at the end of the nineteenth century to the advent of absurdism in the mid-1960s. (Every two years)

ENG 366. Modern Fiction: 1900 to 1965 (3 hours)
A study of major modernist innovations in form and techniques by the foremost writers of the twentieth century up to 1965. Writers usually include Joyce, Woolf, Lawrence, James, Fitzgerald, Hemingway, Faulkner. (Every two years)

ENG 367. Contemporary Drama: 1965 to Present (3 hours)
A study of drama in English since 1965, exploring aspects of postmodern aesthetics and staging. (Every two years)

ENG 368. Contemporary Poetry: 1965 to Present (3 hours)
A study of major English and American poets with respect to representative themes of postmodernism and new directions in poetic form. Major topics include: confessional and Black Mountain poetics, neo-surrealism, concrete poetry, and political, regional, and feminist verse. (Every two years)

ENG 369. Contemporary Fiction: 1965 to Present (3 hours)
A study of major English and American works that extends modern modes in fictional representation and style. (Every two years)
ENG 371. Beginning Playwriting (3 hours)  
(Same as THR 371)  
The goal of this course is to introduce the student to the conventions and techniques of playwriting. Students will complete exercises leading to the creation of an original one-act play. (Occasional)  

ENG 372. Screenwriting (3 hours)  
The art, craft, and business of screenwriting from theoretical and practical perspectives. Topics include: the nature of screenplay formats and structures; creation and development of premise, plot, character, and action; scene writing; adaptation issues; place of the screenwriter in the collaborative process of film making; and marketing strategies. (Occasional)  

ENG 378. Images of Women in Literature (3 hours)  
(Same as WGS 378)  
A study of the literary representation of women, with emphasis on the lives and careers of women writers. Authors covered may include Austen, Bronte, Wharton, Woolf, Morrison, and others. (Every two years)  

ENG 380. Special Topics in English Literature (3 hours)  
A study of some significant topic in literature written in English not included in the regular departmental offerings. May be taken twice for credit in the English major. (Every year)  

ENG 382. The Critical Study of Film (3 hours)  
An examination of film as a form of literature. A study of the relationship of film to literary forms and structures. Special emphasis will be on important film genres, as well as on the work of major directors. (Every two years)  

ENG 480S. Seminar in Literature (3 hours)  
Prerequisites: senior standing.  
A study of some significant topic in English or American literature not included in the regular departmental offerings. May not be repeated for credit. Required for the literature track of the English major. (Every semester)  

ENG 483. Advanced Playwriting Workshop (3 hours)  
Prerequisites: Junior or senior standing; ENG/THR 371 and ENG 372.  
A portfolio (two complete plays) approved by the instructor may substitute for ENG/THR 371 and/or ENG 372. Students will write and revise one play with assistance from readers’ theater criticism conducted by classmates and will assemble a portfolio of three complete plays. Offered as needed for playwriting students unable to enroll in ENG 485 (Sams Seminar in Drama). (Occasional)  

ENG 484. Directed Independent Reading (1-3 hours)  
Prerequisite: Junior or Senior status and consent of the instructor. This course provides the student with the opportunity to do guided intensive reading in a literary field of his or her interest under the direction of the instructor selected. The student will be expected to meet regularly with the instructor and to present written evidence of his or her critical ability and aesthetic appreciation. Variable credit 1-3 hours, not to exceed 3 hours total. (Occasional)  

ENG 485. The Ferrol Sams, Jr., Distinguished Chair of English Seminar in Fiction, Poetry, or Drama (3 hours)  
Prerequisite: successful completion of appropriate creative writing courses or by permission of the instructor. This course will provide an opportunity for students to study advanced creative writing under an accomplished artist. (Every year)
ENG 487. Advanced Creative Writing Workshop (3 hours)
Prerequisites: junior or senior standing, ENG 310, 311, or 312.
The course follows a workshop format wherein students critique one another's work, hone their editing skills, and study the editorial standards of strong presses and practicing writers. The course also explores matters of form and researching markets for written work. (Every two years)

ENG 488. Independent Study for Honors in English (3 hours)
Open to qualified senior English majors and offered fall semester of each year. Working under the direction of a member of the English Department and with the approval of the chair, the student will complete by March 15 of his or her senior year an essay project of scholarly merit. Three hours credit will be awarded on satisfactory completion of the project, and an Honors designation will be entered in the student record. (Occasional)

FINANCE (FIN)
For a description of the program of study in this area, and of the courses offered, see the section EUGENE W. STETSON SCHOOL OF BUSINESS AND ECONOMICS in this catalog.

FIRST-YEAR SEMINAR (FYS)
Jonathan C. Glance, Director of FYS Program/Professor of English
Douglas Thompson, Director of FYS-X Program/Assistant Professor of Interdisciplinary Studies

The First Year Seminar course sequence is the gateway to a liberal arts education at Mercer University. FYS 101—Composing the Self—and FYS 102—Engaging the World—introduce the student to the essential skills of critical reading, critical writing, and effective communication. Students develop and practice these skills through reading and discussing texts and by composing essays in which they propose and defend original theses with critical arguments. Students and instructors also apply these skills by discussing diverse texts and events in classes that are taught in a seminar setting with limited enrollment. In the Fall semester, students will read and discuss texts that speak to the theme of “composing the self.” In the Spring semester, students will consider issues related to “engaging the world,” whether as individuals or as part of a community. While various sections employ diverse texts, assignments, and approaches to explore these themes, all sections focus on helping students develop the habits of thought essential to critical thinking, reading, and writing. For this reason, FYS 101 and 102 are common core requirements in the College of Liberal Arts' General Education program.

A student may repeat FYS 101 or FYS 102 only in order to remove a failing grade in that course. Repeats of any FYS course must be completed by the end of the student's second year of study. Students with junior or senior status may not enroll in FYS 101 or 102. Students failing to complete this requirement are obliged to complete ENG 108, plus one additional 200 level English course for each of the two FYS courses not completed. Any 200 level English course taken to fulfill the FYS requirement cannot be used to fulfill the Humanities and Fine Arts requirement (Block 3) of the General Education Distributional Program.

Experiential sections of the First Year Seminar, designated “X,” extend the purposes of the program by requiring weekly tutoring of elementary-school students in Title I schools. In the Fall semester, a weekend camping trip that typically involves ropes-course exercises is also required. Sections which are not designated “X” may require similar activities, at the dis-
cretion of the teacher. In the Fall semester, the sections designated “X” offer five hours credit. In the Spring semester, all sections carry four hours credit. For more description of the experiential sections, please contact the Director of First Year Seminar or the Director of First Year Seminar Experiential.

**FYS 101. Composing the Self (4-5 hours)**
Students will explore questions of the sources, worth, and consequences of individual identity while they practice critical thinking, reading, and writing. All sections require use of diverse interdisciplinary texts and substantial written work. (Every year)

**FYS 102. Engaging the World (4 hours)**
Prerequisite: Successful completion of FYS 101 or consent of the Director.
Students will explore questions of life in the world, through such issues as social justice, cross-cultural interaction, and the conflict of social duty and the individual conscience, while they practice critical thinking, reading, and writing. All sections require use of diverse interdisciplinary texts and substantial written work. (Every year)

**FYS 301. FYS Preceptorship (2-3 hours)**
Prerequisite: Successful completion of FYS 101 and 102 or consent of the Director.
Selected students may serve as teaching facilitators in FYS 101. Preceptors attend all classes, read the assigned work, and participate in class discussions. The main duties of the preceptors are to facilitate class discussion and to give constructive feedback on writing assignments. Other duties will be determined by the FYS teacher in consultation with the preceptor. In addition, the preceptor will be required to reflect in writing on the experience. This class will be graded on a S/U basis and can be taken only once with 2 hours credit for FYS and 3 hours credit for FYS/X. (Every year)

**FYS 302. FYS Preceptorship (2 hours)**
Prerequisite: Successful completion of FYS 101 and 102 or consent of the Director.
Selected students may serve as teaching facilitators in FYS 102. Preceptors attend all classes, read the assigned work, and participate in class discussions. The main duties of the preceptor are to facilitate class discussion and to give constructive feedback on writing assignments. Other duties will be determined by the FYS teacher in consultation with the preceptor. In addition, the preceptor will be required to reflect in writing on the experience. This class will be graded on a S/U basis and can be taken only once. (Every year)

**FOREIGN LANGUAGES AND LITERATURES (FLL)**
Anna Weaver, Chair/Associate Professor
William R. Davis, John M. Dunaway, and Edward J. Weintraut, Professors
Achim Kopp and Lydia Masanet, Associate Professors
J. Fernando Palacios, Jose Pino, and Yosalida Rivero-Zaritsky, Assistant Professors

The Department of Foreign Languages and Literatures builds students' proficiency in the five areas necessary for communication: listening, speaking, reading, writing, and cultural competence in French, German, Greek, Italian, Latin, and Spanish. It also strengthens students' understanding of the literature, history, customs, and culture of the peoples who used or are using those languages. Major and minor programs are offered in French, German, Latin, and Spanish.

Students may not repeat FRE, GER, GRK, LAT, or SPN 111 after successful completion of FRE, GER, GRK, LAT, or SPN 112. Students who place into and successfully complete FLL 251 or above will receive an additional 4 hours of credit toward graduation for the elementary sequence.
A major in French or Spanish consists of 32 hours*, with a minimum of 18 hours in courses numbered 300 or above. FRE 301, 302, and either 303 or 304 are required for a French major, and 315 is strongly advised. For Spanish majors, a peninsular survey (SPN 303, 304, or 320) and a Spanish-American survey (306 or 310) of literature are required; majors are also urged to take SPN 313 or 314. Nonnative speakers of Spanish pursuing the major are required to take SPN 301 and SPN 302. A minor in French or Spanish consists of a minimum of 18 hours*, 9 hours of which must be in courses numbered 300 or above. French and Spanish majors must pass an exit examination.

A major in German consists of 28 hours*, with a minimum of 14 hours in courses numbered 300 or above. German majors must complete the Zertifikat Deutsch examination with a passing grade (minimum of "ausreichend bestanden"). A minor in German consists of a minimum of 18 hours*, to include GER 311 and two other 300-level courses.

A major in Latin consists of at least 24 hours*, 15 of which must be in courses numbered 300 or above. Majors are encouraged to take courses in related areas, such as ancient history and classical literature. A minor in Latin consists of 18 hours*, 9 of which must be in courses numbered 300 or above. Latin majors must pass an exit examination.

*IN ALL FLL MAJORS AND MINORS, SOME LOWER-DIVISION REQUIREMENTS MAY BE EXEMPTED AS A RESULT OF EXAMINATION OR EVIDENCE OF PRIOR TRAINING OR EXPERIENCE.

Majors may attain Departmental Honors in French, German, Latin, or Spanish by meeting the following requirements: (1) apply for admission to the program by the end of the spring semester of the junior year; (2) select a director from the department faculty; (3) attain a minimum cumulative grade point average of 3.0; (4) attain a 3.75 grade point average in language courses; (5) enroll in FRE, GER, LAT, SPN 490; (6) complete a special project in language, literature, methodology, or other approved area; (7) give a departmental honors presentation.

STUDY ABROAD

The Department of Foreign Languages and Literatures is affiliated with four study abroad programs. The prerequisite for each is either successful completion of 112 or consent of department faculty.

1. STUDY IN FRANCE: Students study at the Centre International d'Etudes Françaises in Angers, France. They may earn up to 15 hours of credit, up to 9 of which may count toward the major. No more than 6 credit hours may count toward the minor.

2. STUDY IN SPAIN: Students study at the Center for Cross-Cultural Study in Seville, Spain. They may earn up to 16 hours of credit, up to 9 of which may count toward the major. No more than 6 credit hours may count toward the minor.

3. STUDY IN GERMANY: Students study at the Speak and Write Institute in Marburg, Germany. Variable credit up to 15 hours, up to 9 of which may count toward the major. No more than 6 credit hours may count toward the minor.

4. STUDY IN LATIN: Variable credit up to 15 hours, up to 9 of which may count toward the major. No more than 6 credit hours may count toward the minor.

5. STUDY IN GREEK: Variable credit up to 9 hours. No more than 6 credit hours may count toward an individual minor.
FRENCH (FRE)

FRE 111-112. Beginning French I and II (4 hours each)
Open to students with little or no previous instruction in French, this course sequence enables students to attain a basic competency in all language skills: listening, speaking, writing, reading, and culture. Language lab activities complement classroom instruction. (Every semester)

FRE 251. Intermediate French I (3 hours)
Prerequisite: successful completion of or exemption from FRE 111-112. Continued development of language skills leading to the ability to handle a limited variety of social situations, such as travel needs, biographical information, leisure activities, etc., including past and present frames of reference. The course includes discussion of appropriate aspects of French culture and literature. Language lab activities complement classroom instruction. (Every fall)

FRE 252. Intermediate French II (3 hours)
Prerequisite: completion of or exemption from FRE 251. Continued development of the four language skills leading to the ability to handle an increased variety of social situations, including those calling for different levels of subjectivity (expression of opinion, emotions, wishes, etc.) and future and conditional frames of reference. The course includes discussion of appropriate aspects of French culture and literature. Language lab activities complement classroom instruction. (Every spring)

FRE 253S-353S. French Studies in France (1-15 hours)
Prerequisite: FRE 112 or consent of department faculty. French language, civilization, history, and literature, to be taken during the Mercer Studies in France Program. Emphasis on one or more of the abovementioned course content components. Variable credit up to 15 hours, 9 of which may count toward the major or 6 toward the minor. (Every year)

FRE 285. Intermediate Conversational Practice (1 hour)
Prerequisite: FRE 251 or consent of instructor. This course is designed for students who would like to maintain their proficiency in speaking and listening skills. Course content will include discussion of current topics from French-language newspapers, magazines, newsletters, videos, and films. One credit-hour per semester not to exceed four credit hours; does not count toward major or minor; non-option al “Satisfactory- Unsatisfactory” grading. (Every year)

FRE 301. French Composition and Conversation I (3 hours)
Prerequisite: FRE 252 or consent of instructor. Concentrated study of everyday French by means of class discussions and short compositions. Various grammatical difficulties will be studied. Phonetic exercises will be performed in the language lab. (Every fall)

FRE 302. French Composition and Conversation II (3 hours)
Prerequisite: FRE 301 or consent of instructor. Continued work in oral comprehension as well as the study of a more abstract vocabulary and complex grammatical structures through the reading of short literary extracts. (Every spring)
FRE 303. French Literature and Cultural Identity I (3 hours)
Prerequisite: FRE 302.
Students will continue to improve their linguistic and cultural competence by examining some of the fundamental works that are essential to the development and understanding of French culture and society. Class discussion will focus on such early writings as *La Chanson de Roland* and *Les Lais de Marie de France* and may also address works of Rabelais, Montaigne, Corneille, Racine, Du Bellay, Molière, Mme. de Sévigné, Voltaire, Rousseau, and others. (Every two years)

FRE 304. French Literature and Cultural Identity II (3 hours)
Prerequisite: FRE 302.
Students will continue to improve their linguistic and cultural competence by examining some of the significant shifts in society and literature that resulted from the French Revolution and that are essential to the development and understanding of French culture and society. Class discussion will focus on works of Chateaubriand, Lamartine, Hugo, Baudelaire, George Sand, Flaubert, Proust, Apollinaire, Camus, Sartre, and others. (Every two years)

FRE 315. French Civilization (3 hours)
Prerequisite: FRE 302.
A chronological overview of the most notable achievements, customs, and traditions in French history, art, architecture, and literature. Other distinctive features of contemporary France, such as cinema, music, geography, and politics, will be treated as well. (Every two years)

FRE 317. French Literature and Culture of the Seventeenth Century (3 hours)
Prerequisite: FRE 302.
Advanced practice in the four communications skills through reading, discussing, and writing about major literary works and the cultural context out of which they grew in the seventeenth century in France. Emphasis on the theater of Corneille, Racine, and Molière, as well as the philosophy of Pascal and Descartes, along with other writers such as Mme de Sévigné, Mme. de LaFayette, La Fontaine, and La Rochefoucauld. Study of special social dynamics such as the “salon mondain” and court life at Versailles. (Occasional)

FRE 319. French Literature and Culture of the Nineteenth Century (3 hours)
Prerequisite: FRE 302.
Advanced practice in the four communications skills through reading, discussing, and writing about major literary works and the cultural context out of which they grew in the nineteenth century in France. Emphasis on such movements as Romanticism, Realism, Parnassian poetry, Symbolism, Positivism, and Naturalism. Study of such cultural phenomena as the growing gap between artist and public and the importance of social justice during this century. (Occasional)

FRE 320. French Literature and Culture Since 1900 (3 hours)
Prerequisite: FRE 302.
Advanced practice in the four communications skills through reading, discussing, and writing about major literary works and the cultural context out of which they have grown in France and Francophonie since 1900. Movements such as Surrealism, the Renouveau Catholique, the Nouveau Roman, Theater of the Absurd, Existentialism, Feminism, and Postmodernism will be highlighted, as well as the works of less easily classified writers (Proust, Gide, Duras, Queneau, etc.). (Occasional)
FRE 385. Special Topics in French (Subtitle)  (1-3 hours)
Prerequisite: consent of instructor.
May be repeated for major or minor credit. (Occasional)

FRE 425. Seminar (Subtitle)  (3 hours)
Prerequisite: FRE 302 or consent of the instructor.
A concentrated study of selected authors, literary movements, or topics in French life and
culture. Topics will vary from year to year. May be repeated for major or minor credit.
(Occasional)

FRE 480. Internship  (Variable credit; up to 15 hours)
Prerequisite: departmental approval.
A supervised program of field experience in which students make practical application of
their skills in French in an approved establishment outside the University. The department
as a whole must approve the student's project, which will be directed by an instructor and
an on-site supervisor. No more than 3 hours may be counted toward a French major or
minor. (Occasional)

FRE 485. Assistantship for French 111-112  (1 hour)
Prerequisite: permission of the instructor.
Selected French majors or minors serve as assistants in FRE 111 or 112. Assistants attend
2-3 classes per week, study the assigned work, and help conduct classroom and lab activ-
ities. Assistants may review but will not evaluate students' work. Other duties will be deter-
mined by the instructor in consultation with the assistant. In addition, the assistant will be
required to complete a written reflection on the experience. Does not count toward the major
or minor. Mandatory S/U grading. May not be repeated. (Occasional)

FRE 490. Supervised Independent Study  (1-3 hours)
Prerequisite: consent of instructor.
An intensive reading program designed to examine in depth a specific theme or author in
French literature. May be repeated for major or minor credit. (Occasional)

GERMAN (GER)

GER 111-112. Beginning German I and II  (4 hours each)
This course sequence is designed to help students cultivate a basic level of proficiency in all
four language skills (reading, writing, speaking, and listening). By the end of this sequence,
students should be able to communicate meaningfully with native speakers who are accus-
tomed to dealing with non-native users of German. Emphasis is on basic needs in highly pre-
dictable, common everyday situations. Language lab activities complement classroom
instruction. (Every year)

GER 251-252. Intermediate German I and II  (3 hours each)
Prerequisite: GER 112 or exemption.
This sequence is designed to help students enhance their proficiency in all four language
skills. By the end of the sequence, students should be able to communicate meaningfully with
sympathetic native speakers. Emphasis is on an increasing variety of interactive transactions
in past, present, future, and hypothetical frames of reference, including those requiring
expression of opinion, emotions, wishes, and reservations. Language lab activities comple-
ment classroom instruction. (Every year)

GER 253S-353S. German Studies Abroad  (Variable credit; up to 15 hours)
Prerequisite: completion of GER 112 or consent of department faculty.
Emphasis on one or more of the following areas: German languages, culture, history, and literature. Variable credit up to 15 hours, up to 9 of which may count toward the major or 6 toward the minor. (Every year)

**GER 285. Intermediate Oral Practice** (1 hour)
Prerequisite: German 251 or consent of instructor.
This course is designed for students who would like to maintain their proficiency in speaking and listening skills. Course content will include discussion of current topics from German-language newspapers, magazines, newsletters, videos, and films. One credit-hour per semester not to exceed four credit hours; does not count toward major or minor; non-optional “Satisfactory-Unsatisfactory” grading. (Occasional)

**GER 311. Conversation and Composition** (3 hours)
Prerequisite: GER 252 or consent of instructor.
Continued enhancement and refinement of the four language skills leading to the ability to perform effectively and meaningfully in an increased variety of social situations. Introduction to discourse strategies in speaking (e.g., interrupting speaker, asserting one’s opinion, paraphrasing) and in writing (e.g., requesting information, applying for positions, refusing or accepting invitations). Language lab activities complement classroom instruction. (Every year)

**GER 321. Contemporary German Society and Culture** (3 hours)
Prerequisite: GER 311 or consent of instructor.
On-going enhancement and refinement of skills in reading, writing, listening, and speaking. Class discussion will focus on a variety of issues affecting contemporary German society and culture (e.g., political, economic, sociological, psychological, religious). Language lab activities complement classroom instruction. (Every three years)

**GER 351. German Literature, Culture, and Society I** (3 hours)
Prerequisite: GER 311.
On-going enhancement and refinement of skills in reading, writing, listening, and speaking. Class discussion will focus on excerpts from works written by authors such as Walther von der Vogelweide, Wolfram von Eschenbach, Martin Luther, Andreas Gryphius, Gotthold Ephraim Lessing, Johann Michael Lenz, Johann Wolfgang von Goethe, Friedrich von Schiller, Friedrich Hoelderlin, and Immanuel Kant. Language lab activities complement classroom instruction. (Occasional)

**GER 352. German Literature, Culture, and Society II** (3 hours)
Prerequisite: GER 311.
On-going enhancement and refinement of skills in reading, writing, listening, and speaking. Class discussion will focus on excerpts from works written by authors such as Johann Wolfgang von Goethe, Friedrich von Schiller, Novalis, Joseph von Eichendorff, Heinrich Heine, Arthur Schopenhauer, Friedrich Nietzsche, Theodor Fontane, Rainer Maria Rilke, and Bertolt Brecht. Language lab activities complement classroom instruction. (Every two years)

**GER 353. German Literature, Culture, and Society III** (3 hours)
Prerequisite: GER 311.
On-going enhancement and refinement of skills in reading, writing, listening, and speaking. Class discussion will focus on works written by authors such as Bertolt Brecht, Friedrich Duerrenmatt, Heinrich Boell, Guenter Grass, Wolf Biermann, Christa Wolf, and Heiner Mueller. Special emphasis on issues attending post-unification Germany and the perennial German Question. Language lab activities complement classroom instruction. (Every two years)
GER 385. Special Topics in German (Subtitle) (1-3 hours)  
Prerequisite: consent of the instructor.  
May be repeated for major or minor credit. (Occasional)

GER 411. Advanced Stylistics (2 hours)  
Prerequisites: GER 311 and two courses in German literature, culture, and society.  
This course is designed to help students refine their abilities in all four skills and discuss with greater sophistication a wide variety of complex topics pertaining to contemporary German. Language lab activities complement classroom instruction. (Occasional)

GER 425. Seminar (Subtitle) (3 hours)  
Prerequisites: GER 311; one course from literature, society, and culture grouping; and consent of the instructor.  
This course is designed to help students examine in depth a particular author, work, or issue in German literature, culture, or society. (Occasional)

GER 480. Internship (Variable credit; up to 15 hours)  
Prerequisite: departmental approval.  
A supervised program of field experience in which students make practical application of their skills in German in an approved establishment outside the University. The department as a whole must approve the student's project, which will be directed by an instructor and an on-site supervisor. No more than 3 hours may be counted toward a German major or minor. (Occasional)

GER 485. Assistantship for German 111/112 (1 hour)  
Prerequisite: permission of the instructor.  
Selected German majors or minors serve as assistants in GER 111 or 112. Assistants attend 2-3 classes per week, study the assigned work, and help conduct classroom and lab activities. Assistants may review but will not evaluate students' work. Other duties will be determined by the instructor in consultation with the assistant. In addition, the assistant will be required to complete a written reflection on the experience. Does not count toward the major or minor. Mandatory S/U grading. May not be repeated. (Occasional)

GER 490. Supervised Independent Study (1-3 hours)  
Prerequisite: consent of the instructor.  
This course is designed to help students examine in depth a particular author, work, or issue in German literature, culture, or society. May be repeated for major or minor credit. (Occasional)

GREEK (GRK)

GRK 111-112. Beginning Greek I and II (3 hours each)  
Open to students with little or no previous instruction in Greek, this sequence enables students to attain a fundamental competency in Hellenistic Greek grammar and to build a basic Greek vocabulary drawn from the Greek New Testament. The courses focus on the mastery of fundamental elements of Greek grammar and vocabulary, the use of Greek language tools, and the translation of selected readings from the Greek New Testament. (Every year)

GRK 251. Intermediate Greek (3 hours)  
Prerequisite: successful completion or exemption from GRK 111-112.  
This course is designed to further students' competency in Hellenistic Greek grammar and vocabulary through an intensive study of selected texts from the Greek New Testament. Attention will also be given to the history of the Greek language and to classical, Hellenistic, and Byzantine Greek culture and literature. (Every year)
GRK 253S-353S. Greek Studies Abroad

(Variable credit; up to 9 hours)

Prerequisite: completion of Greek 112 or consent of the instructor.

Study abroad in Greece with emphasis on one or more of the following areas: Greek language, Greek literature, Greek archaeology (including inscriptions), classical history and literature. Variable credit up to 9 hours, up to 6 of which may count toward an individual minor. (Every year)

GRK 385. Special Topics in Greek (Subtitle)

(3 hours)

Prerequisite: consent of instructor.

This course focuses on the translation of Greek texts, which may include selections from Homer, the Septuagint, the New Testament, Josephus, Philo, or Pausanias. May be repeated. (Every year)

ITALIAN (ITA)

ITA 101. Accelerated Elementary Italian

(1 hour)

Prerequisite: at least two years’ study in high school (or a full year in college) of French, Spanish, or Latin, or consent of the instructor.

This course stresses fundamental Italian pronunciation, reading and listening skills. Grammar is not systematically covered but taught only as needed for developing the aforementioned skills. Although this course is designed especially for students who have already studied another Romance language, those who have a particular interest in and aptitude for foreign language are also welcome. (Every two years)

LATIN (LAT)

LAT 111-112. Beginning Latin I and II

(3 hours each)

Open to students with little or no previous instruction in Latin, this sequence enables participants to attain a fundamental competency in Latin grammar and to build a basic Latin vocabulary. Close readings of basic texts, including translations from Latin to English and vice versa, will be stressed. In addition to offering an introduction to Roman civilization and literature, this sequence will familiarize students with Latin elements in the English language and with the sound of Latin. Language lab activities will complement classroom instruction. (Every year)

LAT 251. Intermediate Latin

(3 hours)

Prerequisite: successful completion of or exemption from LAT 111-112.

This course is designed to further students’ competency in Latin grammar and vocabulary. By making the transition from textbook selections to brief excerpts from a variety of Golden Age authors (e.g., Cicero, Caesar, Catullus, Vergil, Livy, and Ovid), students will practice translating and interpreting original literary texts. Language lab activities will complement classroom instruction. (Every year)

LAT 253S-353S. Latin Studies Abroad

(Variable credit; up to 15 hours)

Prerequisite: completion of LAT 112 or consent of department faculty.

Study abroad with emphasis on one or more of the following areas: the Latin language, Roman literature, classical history, and classical culture. Variable credit up to 15 hours, up to 9 of which may count toward the major or 6 toward the minor. (Occasional)
LAT 300. Republican Prose (3 hours)
An overview of the development of prose in the republican era, with emphasis on the works of Cicero, Caesar, and Sallust. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 310. Imperial Prose (3 hours)
An overview of the development of prose in the imperial era, with emphasis on the works of Livy, Tacitus, Seneca, Pliny the Younger, and Petronius. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 320. Comedy (3 hours)
Besides providing an overview of the development of the Roman comedy, this course offers students close reading of selected comedies by Plautus and Terence, two early Roman writers endowed with timeless wit. In some instances comparisons will be made with adaptations by modern authors. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 330. Philosophical Texts (3 hours)
A comparison of the two leading philosophical schools in ancient Rome: Stoicism and Epicureanism. Authors to be studied include Cicero, Seneca, and Lucretius. While the former two emphasize virtue and duty in an individual’s dealing with fellow human beings and the gods, the latter attempts to free the Romans’ minds from superstition. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 340. Vergil (3 hours)
While introducing students to Vergil’s smaller works, i.e., the Eclogues and the Georgics, this course focuses on the author’s greatest work, the Aeneid, the Roman national epic. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 350. Ovid (3 hours)
While offering an overview of all of Ovid’s works, the course will focus on the Metamorphoses. Reading and interpreting these legends of transformations will familiarize students with important topics from Greek and Roman mythology. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 360. Lyric Poetry (3 hours)
An overview of the development of Roman lyric poetry. Selected authors for close readings include Catullus, Horace, Tibullus, and Propertius. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 370. Satire (3 hours)
A survey of the development of Roman satire, with readings from Horace, Persius, Juvenal, and Martial. In addition to literary, cultural, and historical material, the further development of students’ competency in Latin grammar and vocabulary will be stressed. (Every three years)

LAT 485. Assistantship for Latin 111-112 (1 hour)
Prerequisite: permission of the instructor.
Selected Latin majors or minors serve as assistants in LAT 111 or 112. Assistants attend 2-3 classes per week, study the assigned work, and help conduct classroom and lab activities. Assistants may review but will not evaluate students' work. Other duties will be determined by the instructor in consultation with the assistant. In addition, the assistant will be required to complete a written reflection on the experience. Does not count toward the major or minor. Mandatory S/U grading. May not be repeated. (Occasional)

LAT 490. Supervised Independent Study (1-3 hours)
Prerequisite: consent of the instructor.
An in-depth study of a particular author, work, or issue in Roman literature or culture. May be repeated for major or minor credit. (Occasional)

SPANISH (SPN)

SPN 111-112. Beginning Spanish I and II (4 hours each)
Open to students with little or no previous instruction in Spanish. This course sequence enables students to attain a basic competency in all language skills: listening, speaking, writing, reading, and culture. Emphasis is on basic needs in common everyday situations.
Language lab activities complement classroom instruction. (Every semester)

SPN 251. Intermediate Spanish I (3 hours)
Prerequisite: successful completion of or exemption from SPN 112.
Continued development of the four language skills leading to the ability to handle a limited variety of social situations such as travel needs, biographical information, leisure activities, etc., including past, present, and future frames of reference. The course includes discussion of appropriate aspects of Hispanic society and culture and presents media-based activities as well as video applications. Language lab activities complement classroom instruction. (Every semester)

SPN 252. Intermediate Spanish II (3 hours)
Prerequisite: successful completion of or exemption from SPN 251.
Continued development of the four language skills leading to the ability to handle an increased variety of social situations, including those calling for different levels of subjectivity as well as future and conditional frames of reference. The course continues discussion of appropriate aspects of Hispanic society and culture and presents media-based activities as well as video applications. Language lab activities complement classroom instruction. (Every semester)

SPN 253S-353S. Hispanic Studies Abroad (Variable credit; up to 16 hours)
Prerequisite: completion of SPN 112 or consent of department faculty.
Study abroad with emphasis on one or more of the following areas: Hispanic literature, culture, history, and language. Variable credit up to 16 hours, up to 9 of which may be counted toward the major or 6 toward the minor. (Every year)

SPN 285. Intermediate Oral Practice (1 hour)
Prerequisite: SPN 251 or consent of instructor.
Continued development of the four language skills leading to the ability to handle an increased variety of social situations, including those calling for different levels of subjectivity (expression of opinion, emotions, wishes, etc.) and future and conditional frames of reference. The course includes discussion of appropriate aspects of Hispanic culture and literature. Language lab activities complement classroom instruction. One credit-hour per semester, not to exceed four credit-hours; does not count toward major or minor; non-optional “Satisfactory- Unsatisfactory” grading. (Every year)
SPN 301. Spanish Conversation and Composition I (3 hours)
Prerequisite: SPN 252 or consent of instructor.
Continued refinement of the four language skills. Various grammatical difficulties will be studied. Concentrated study of everyday Spanish by means of discussions and short compositions. Language lab activities will complement classroom instruction. This course is normally restricted to students studying Spanish as a second language. (Every fall)

SPN 302. Spanish Conversation and Composition II (3 hours)
Prerequisite: SPN 252 or consent of instructor.
Continued work in oral/aural comprehension and communication. The acquisition of a more abstract vocabulary and the ability to work with more complex grammatical structures will be developed through the reading of short literary extracts. This course is normally restricted to students studying Spanish as a second language. (Every spring)

SPN 303. Spanish Literature I (3 hours)
Prerequisite: SPN 302.
Students will continue to improve their linguistic skills and historical and cultural awareness by examining some of the fundamental literary works that are essential to the development and understanding of Spanish society. Class discussion will focus on epic and baroque poetry, clerical works, La Celestina, Lazarillo, de Tormes, and selections from the Don Quixote. The course includes basic elements of literary interpretation. (Every two years)

SPN 304. Spanish Literature II (3 hours)
Prerequisite: SPN 302.
Students will continue to improve their linguistic skills as well as historical and cultural awareness by examining some of the fundamental literary works that are essential to the development and understanding of Spanish society. Class discussion will focus on representative authors of such movements as Romanticism, Realism, Existentialism, Surrealism, and Postmodernism. The course introduces basic elements of literary criticism. (Every two years)

SPN 306. Spanish American Literature I (3 hours)
Prerequisite: SPN 302.
A study of representative works in prose and poetry from the colonial period through postmodernism. Readings will include the chronicles and letters of Christopher Columbus and Hernan Cortes, and works by later writers such as Sor Juana de la Cruz, Jose Maria Hereda, Ricardo Palm, and the modernist poets Jose Marti, Julian Casal, Gutierrez Najera, and J. Asuncion-Silva, with special emphasis on the poetry of Ruben Dario. The course seeks to develop further proficiency in the communication skills as well as analyze literature within a social and cultural context. Attention will be given to socio-political conditions as a force in the formation of the literature. (Every two years)

SPN 310. Spanish American Literature II (3 hours)
Prerequisite: SPN 302.
A study of the major literary works produced by Spanish America during the twentieth century. Readings will include selections in poetry, drama, and prose. The course emphasizes H. Quiroga, Luis Borges, Julio Cortazar, Jose Donoso, Isabel Allende, and five Nobel Prize recipients: Gabriela Mistral, Pablo Neruda, Octavio Paz, Miguel Angel Asturias, and Garcia Marquez. The course seeks to develop further proficiency in the communication skills as well as analyze literature in a social and cultural context. Attention will be given to socio-political conditions as a force in the formation of the literature. (Every two years)
SPN 313. Culture and Civilization of Spain (3 hours)
Prerequisite: SPN 302
This course is designed to engage and prepare students in a cultural, historical and geographical exploration of Spain while continuing the enhancement and refinement of the four language skills (listening, reading, writing, and speaking). Classroom discussions will be supplemented by films and readings from newspapers, magazines and selected literary works which highlight the political, historical and social situation of Spain today. (Every two years)

SPN 314. Culture and Civilization of Latin America (3 hours)
Prerequisite: SPN 302
This course is designed to engage and prepare students in a cultural, historical and geographical exploration of Latin America while continuing the enhancement and refinement of the four language skills (listening, reading, writing, and speaking). Classroom discussions will be supplemented by films and readings from newspapers, magazines and selected literary works which highlight the political, historical and social situation of Latin America today. (Every two years)

SPN 320. Contemporary Spanish Literature (3 hours)
Prerequisite: SPN 302.
A study of selected contemporary texts and movements. The course emphasizes the communicative skills of listening, reading, speaking, and writing within a social and cultural context, using such themes as personal identity, the family, the individual and society, and social classes in Spain. The course also seeks to develop proficiency in basic literary analysis and criticism. (Every two years)

SPN 325. Business Spanish (3 hours)
Prerequisite: SPN 252.
An introduction to the communicative skills of business language: speaking, listening comprehension, reading, writing, and cross-cultural awareness. Emphasis is placed on developing proficiency in realistic contextualized situations encountered in the Hispanic business community. (Every two years)

SPN 385. Special Topics in Spanish (Subtitle) (1-3 hours)
Prerequisite: consent of instructor.
May be repeated for major or minor credit. (Occasional)

SPN 417. The Golden Age of Spanish Literature (3 hours)
Prerequisites: one 300-level literature class and consent of instructor.
A study of representative works of the great dramatists, prose writers, and poets of the 16th and 17th centuries. Emphasis will be placed on works of Cervantes, Lope de Vega, Calderon, Tirso de Molina, and Gongora. (Occasional)

SPN 420. Advanced Stylistics (3 hours)
Prerequisite: SPN 302.
This course is designed to help students refine their written communication through practical exercises in both free and directed composition. Concentrates on the development of form and style through the study of model texts by Hispanic authors. (Occasional)

SPN 425. Seminar (Subtitle) (3 hours)
Prerequisite: junior or senior status or consent of instructor.
A concentrated study of selected authors, literary movements, or topics in Spanish life and culture. Topics will vary from year to year. May be repeated for major or minor credit. (Occasional)
**SPN 480. Internship** (Variable credit; up to 16 hours)
Prerequisite: departmental approval.
A supervised program of field experience in which students make practical application of their skills in Spanish in an approved establishment outside the University. The department as a whole must approve the student’s project, which will be directed by an instructor and an on-site supervisor. No more than 3 hours may be counted toward a Spanish major or minor. (Occasional)

**SPN 485. Assistantship for Spanish 111-112** (1 hour)
Prerequisite: permission of the instructor.
Selected Spanish majors or minors serve as assistants in SPN 111 or 112. Assistants attend 2-3 classes per week, study the assigned work, and help conduct classroom and lab activities. Assistants may review but will not evaluate students’ work. Other duties will be determined by the instructor in consultation with the assistant. In addition, the assistant will be required to complete a written reflection on the experience. Does not count toward the major or minor. Mandatory S/U grading. May not be repeated. (Occasional)

**SPN 490. Supervised Independent Reading** (1-3 hours)
Prerequisite: consent of instructor.
An intensive reading program designed to provide in-depth examination of a particular author or theme in Spanish literature or culture. May be counted toward Spanish major. May not be repeated. (Occasional)

**CLASSICAL STUDIES (CLA)**

The Classical Studies concentration offers students an interdisciplinary approach to the classics. The program combines a linguistic focus (on Latin) with extensive training in a variety of disciplines pertaining to Greek and Roman antiquity. Students will be able to choose from courses in ancient art, classical literature, ancient history, ancient philosophy, and related fields. This concentration helps prepare students for graduate study of classics, ancient history, archaeology, and museum studies.

The concentration consists of a minor in Latin (18 hours) plus another 18 hours to be taken from three of the following pairs of courses: (a) ART 106 and 362; (b) CLA 101 and 102; (c) HIS 301 and 302; and (d) PHI 311 and 360 (when the topic is a classical philosopher). One additional course must be taken from ANT 354, CLA 153S-253S (if three credits or more), GRK 111 or 112, or another course from (a)-(d) above. The concentration includes a total of 39 hours, 21 in upper-division courses. A portfolio of three sample papers from three different disciplines from courses taken for the concentration must be submitted at the completion of the program.

Classical literature courses have no language prerequisites. These courses are recommended as electives or to fulfill the requirements of the Classical Studies concentration. CLA 101 and 102 may also be taken for general education credit (Humanities and Fine Arts, Group 3.)

**CLA 101. Epic, Lyric, and Tragedy** (3 hours)
This course introduces students to three major genres of classical Greek and Roman literature. All texts are read in English translation and focus on themes such as the hero and the ancients’ view of their gods. The reading list includes some of the most prominent authors of classical literature, such as Homer, Sappho, Pindar, Aeschylus, Sophocles, Euripides, Catullus, Horace, Vergil, Propertius, and Ovid. In addition to close literary interpretations and discussions, the course offers an introduction to classical mythology and culture. (Every two years)
CLA 102. Comedy and Satire (3 hours)
This course introduces students to two genres which share a high degree of wit and humor, but which also deliver social and/or political criticism on a deeper level of meaning. All texts are read in English translation. The reading list includes authors such as Aristophanes and Menander (Greek comedy), Plautus and Terence (Roman comedy), as well as Horace, Persius, Martial, Juvenal, Petronius, and Seneca (all representatives of satire, a genre dominated by Roman writers). (Every two years)

CLA 153S-253S. Classical Studies Abroad (Variable credit; up to 12 hours)
Prerequisites: none for CLA 153S, consent of the instructor for CLA 253S.
Study abroad with emphasis on one or more of the following areas: Roman and Ancient Greek literature, history, archaeology, art, architecture, language, philosophy, religion, everyday life, and other areas of classical culture. May be taken more than once. (Occasional)

WORLD LITERATURE IN TRANSLATION (WLT)
WLT 101. Special Topics in World Literature (Subtitle) (3 hours)
Selection of texts of world literature in English translation organized by theme, period, author, etc. No language prerequisite. This course is recommended for general education credit or as an elective. It does not count toward the FRE, GER, LAT, or SPN major or minor. May be repeated if course subtitle is different. (Every two years)

GREAT BOOKS PROGRAM (GBK)
Thomas A. Huber, Director/Professor of Biology
The Great Books curriculum is one of two general education programs in the College of Liberal Arts. The eight required courses emphasize thoughtful inquiry, are discussion-based, and are reading and writing intensive. Through the engagement of primary literary, political, religious, philosophical, and scientific texts in the Western tradition, students can enhance their skills in disciplined thinking and writing, deepen their moral and ethical reflectiveness, and develop their understanding of how the seminal ideas of the past have formed our present world and selves. The Great Books thus provide both a ground and a goal for the specialized disciplines in which students major. The faculty of the College believe that careful study of the primary texts of Western thought and belief in small study groups guided by committed and rigorous instructors from varying academic disciplines is a valid means to a good general education.

Students choosing the Great Books Program for their general education requirements must take eight three-hour courses: GBK 101, 202, 203, 304, 305, 306, 407, and 495. All courses require substantial written work and may require attendance at additional lectures and events. Repeated failure to prepare for classes will result in a failing grade and dismissal from the curriculum.

GBK 101 and 202 are also included in the humanities and fine arts area of the Distributional Program. This allows a student to sample the Great Books curriculum before choosing between the two programs in general education. Any Great Books course may be taken for elective credit, if space is available.

Engineering students may use courses from the Great Books Program to satisfy general education requirements and should coordinate specific course choices with their engineering advisor and the Director of Great Books.

Inquiries about the Great Books Program should be addressed to the Director of Great Books.

174 / MERCER UNIVERSITY
GBK 101 is a prerequisite for all other GBK courses.

GBK 101. Among Gods and Heroes (3 hours)
The introductory course in the Great Books Program concentrates on the ancient Greeks and includes works by Homer, Aeschylus, Sophocles, Thucydides, and Plato. (Every year, fall semester)

GBK 202. Classical Cultures (3 hours)
Prerequisite: GBK 101 or approval of the program director.
Readings from such authors as Plato, Euclid, Aristotle, and Virgil. (Every year, spring semester)

GBK 203. The Hebrew and Christian Traditions (3 hours)
Prerequisite: GBK 101 or approval of the program director.
Readings in several books of the Old and New Testaments as well as selections from Augustine and Aquinas. (Every semester)

GBK 304. Order and Ingenuity (3 hours)
Prerequisite: GBK 202 or 203, or approval of the program director.
Readings from such authors as Dante, Chaucer, Machiavelli, Cervantes, Galileo, and Montaigne. (Every semester)

GBK 305. The Modern Worldview (3 hours)
Prerequisite: GBK 202 or 203, or approval of the program director.
Readings from such authors as Shakespeare, Bacon, Descartes, Pascal, Hobbes, Newton, Locke, Hume, and Milton. (Every semester)

GBK 306. Reason and Revolution (3 hours)
Prerequisite: GBK 202 or 203, or approval of the program director.
Readings from such authors as Rousseau, Goethe, Smith, Jefferson, Madison, Hamilton, Wollstonecraft, Kant, Tocqueville, Marx, Engels, Emerson, and Darwin. (Every semester)

GBK 309. Great Books Preceptorship (1 hour)
Prerequisite: three GBK courses.
Selected upperclass students will serve as teaching facilitators in the Great Books Program in the public schools. Preceptors attend all classes, read the assigned work, participate in class discussions, and complete a final writing assignment. When the public school GBK class comes to campus for activities, the preceptor will help in hosting the events. This course will be graded on an S/U basis and may be taken only once.

GBK 407. The Age of Ambivalence (3 hours)
Prerequisites: GBK 202, 203, and either GBK 304 or 305 or 306, or approval of the program director.
Readings from such authors as Dostoevsky, Yeats, Mendel, Freud, Weber, and Nietzsche. (Every semester)

GBK 495. Special Topics (3 hours)
Prerequisites: GBK 101 and at least junior status or approval of the program director.
A study of texts, themes, or authors not covered in the regular offerings or an intensive study of a major work. Topics offered recently include “Writings of Jane Austen,” “Histories,” “Goethe: Poet and Scientist,” and “Faulkner and the South.” (Every semester)
HEALTH AND PHYSICAL EDUCATION (HED - PED)

Michael E. Bond, Senior Lecturer and Director of Physical Education

Up to 3 hours credit may be applied toward graduation in the College of Liberal Arts and Stetson School of Business and Economics from the following courses. These courses will be graded on an S/U basis.

**PED 141-142-143. Applied Physical Education - Individual Activities**

(1 hour)

Beginning, intermediate, and advanced courses in (A) Tennis; (B) Golf; (C) Archery; and (D) Body Development and Conditioning. (Every semester)

**PED 144-145-146-147-148. Applied Physical Education - Group Activities**

(1 hour)

Instruction in (A) Dancing; (B) Mercer R.A.W. Challenge Course; (C) Volleyball; (D) Bowling; (E) Swimming or Canoeing; (F) Aerobics; (G) Basketball; and (H) Racquetball. (Every semester)

**PED 149. Special Topics in Physical Education**

(1-2 hours)

Instruction in a PED activity not otherwise designated. (Occasional)

**HED 150. Health Facts, Concepts, and Foundations in Contemporary Society**

(3 hours)

A course designed to make today's student aware of and informed about individual, community, and world health problems. (Occasional)

**HED 218. Safety and First Aid**

(3 hours)

A study of the methods of caring for injuries and applying first aid to the injured, along with methods of preventing injuries and accidents. Areas of instruction will include standard first aid, cardio-pulmonary resuscitation, and treating athletic injuries. (Occasional)

**HED 320. Health Education**

(3 hours)

A course designed to present methods and materials for the teaching of phases of health in the elementary and secondary school and the handling of school health problems. Included is a study of the opportunities for integration of materials on health with other subjects of the organized curriculum. (Occasional)

**HED 388. Human Sexuality**

(3 hours)

A course to provide information on the biological, philosophical, and sociological aspects of human sexuality. General topics for study and discussion include sex education as education for love, the biological male, the biological female, human sexual response, contraception, intelligent choice of sexual conduct, and others. (Occasional)

**PED 321. Physical Education in the Elementary School**

(3 hours)

A study of the techniques involved in the teaching of the various phases of physical and health education in the elementary school through a practical and a theoretical approach. (Field experience required.) (Occasional)

**PED 330. Adapted and Therapeutic Physical Education and Recreation**

(3 hours)

A course designed to provide information, insight, and knowledge about the characteristics and needs of typical individuals. (Occasional)
The History Department develops in students an appreciation of the past both for the perspective it affords and for the ways in which studying history can promote critical thinking, effective communicating, and responsible citizenship. The curriculum exposes students to both the breadth and depth of historical inquiry, and successful majors will be able to demonstrate the knowledge and skills on which the discipline is based. The history major provides an appropriate background for graduate and professional school and many kinds of non-academic employment.

Majors are required to complete successfully 11 or more courses (33 semester hours). The three introductory courses, HIS 111, 112, and 165, are required of all majors and enable students to communicate a knowledge of both American History and the history of Western Civilization. The relevant introductory courses must be taken as preparation for upper-division courses unless the instructor consents to an exception. Majors are also required to take History 295, “The Historian’s Craft,” preferably in their sophomore year and History 395, “Studies in Historiography,” preferably in their junior year. In their senior year, majors must complete HIS 495. Of the five remaining courses, at least one must be taken from the first two of the following categories, and at least two must be taken from the third.

1) Pre-Modern Europe and Non-Western (HIS 301, 302, 310, 315, 320, 321, and 324)
2) Modern Europe (HIS 317, 318, 322, 325, 326, 327, 328, 330, and 332)

The distributional requirement among upper-division courses is not met by HIS 333, 340, 481, 491, 495, and 499. Only nine hours of credit in 100-level courses may be applied towards the major, and only six hours of credit in HIS 481, 491, and 499 may be applied toward the major. Upon successful completion of the upper-level requirements, majors will be able to communicate a detailed knowledge of specific pre-modern European, modern European, and American historical eras and fields. They will also be proficient in historical methodology and in both written and oral historical argumentation.

A minor in history consists of five courses, three of which must be from the upper division (301 and above) and which must come from at least two of the categories listed above, or include HIS 395.

Students who major in history may attain Departmental Honors by earning a grade of B+ or better in HIS 495 and by attaining a grade point average of 3.75 in history courses and 3.5 overall.

Secondary Teacher Certification Program in History

Teacher certification in history (6-12) is available to history majors. Students planning to teach history in secondary school should notify their advisor and contact the secondary education advisor in Tift College of Education. Required courses in education include EDUC 210, 220, 256, 283, 357, 398, 399, 406, 430, 469, 476, 485, and 492. Please consult the TIFT COLLEGE OF EDUCATION section of this catalog for more details.
HIS 111. The Making of the West (3 hours)
A history of Western Civilizations from their Near Eastern origins through the formation of overseas empires, emphasizing the distinctive traditions and ideals that have come to define societies as Western. (Every semester)

HIS 112. The West and the Modern World (3 hours)
A globally conscious history of the social, political, and intellectual forces of the modern West. The development of distinct religious, regional, and cultural identities is emphasized, as is the West's role in shaping the modern world. (Every semester)

HIS 165. Problems in American History (3 hours)
A topical introduction to some of the major problems in American history from the sixteenth to the twentieth centuries. The course focuses on a single problem or issue particular to American history. Topics include freedom, religion in public life, war and diplomacy, laws and constitutions, and race. May only be taken once for credit towards graduation. (Every semester)

HIS 295. The Historian's Craft (3 hours)
Prerequisites: HIS 111, 112 or 165, and sophomore standing.
An introduction to the basic vocabulary, source materials, research and writing methods, and historiographical issues in the discipline of history, with an emphasis on analytical and writing skills. The course is required for majors, who are strongly urged to enroll as sophomores. (Every semester)

HIS 301. Ancient History: The Near East and Greece (3 hours)
A study of the rise of civilization in the Near East, its flowering in Greece, and its merging into a Mediterranean culture. (Every two years)

HIS 302. Ancient History: Rome (3 hours)
A study of the rise of Rome in the Italian peninsula, Roman hegemony over the ancient world, and the empire's final dissolution. (Every two years)

HIS 310. The Middle Ages (3 hours)
A survey of the medieval world: the rise of Christianity and the Germanic West; the apogee of medieval civilization with Gothic architecture, scholasticism, and the chivalric tradition; and the late medieval impact of technology, commerce, and the nation-state. (Every two years)

HIS 315. Early Modern Europe (3 hours)
A comparative study of the intellectual, religious, political, and social changes in Europe from the fourteenth to the eighteenth centuries. Topics include the development of Renaissance thought, conflicts over religion and devotion during the Reformation, the growth of the monarchial state and conflicts between absolutism and constitutionalism, the birth of Europe's colonial empires, and the rise of rationalism. (Every two years)

HIS 317. Europe in the Nineteenth Century (3 hours)
A general history of Western and Central Europe in the century after the Congress of Vienna, emphasizing the politics and diplomacy of the major European states. (Every two years)

HIS 318. Twentieth Century Europe (3 hours)
A general history of continental Europe in the twentieth century, emphasizing totalitarianism's threats to liberal institutions and ideals and its awkward place in various national memories. Also addressed are Europeans' loss of global empires and the growth of the European Union. (Every two years)
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<tr>
<th>Course Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HIS 320</td>
<td>Medieval England (3 hours)</td>
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<td></td>
<td>The development of England under the Norman and Plantagenet dynasties (1066-1485) with emphasis on evolving political, social, and economic institutions. (Every two years)</td>
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<td>HIS 321</td>
<td>Early Modern Britain (3 hours)</td>
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<td>A study of the peoples of the British Isles from the close of the Middle Ages through the eighteenth century. Topics include the development of distinct religious, cultural and national identities in Britain, Britain's constitutional conflicts, the quest for a colonial empire, and the origins of the Industrial Revolution. (Every two years)</td>
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<tr>
<td>HIS 322</td>
<td>Modern Britain (3 hours)</td>
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<td></td>
<td>A comparative study of the peoples of the British Isles since the eighteenth century with emphases on the Industrial Revolution and the expansion and subsequent collapse of Britain's empire. (Every two years)</td>
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<tr>
<td>HIS 324</td>
<td>Sub-Saharan Africa to Independence (3 hours)</td>
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<td></td>
<td>(Same as AFR 324)</td>
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<td></td>
<td>A study of sub-Saharan Africa before and during imperialism, with an emphasis on social and cultural history. Literature, anthropology, and memoirs are used to examine the effects of European rule on African cultures. (Every two years)</td>
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<td>HIS 325</td>
<td>Revolution and Its Legacy in France (3 hours)</td>
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<td></td>
<td>A detailed study of the French Revolution, followed by a broader study of how the revolution's liberal, egalitarian, secular, and assimilationist ideals have defined and often polarized public life in France since 1789. (Every two years)</td>
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<td>HIS 327</td>
<td>The Rise of Modern Russia (3 hours)</td>
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<td></td>
<td>A history of the political, social, economic, religious, and intellectual development of Kievan and Muscovite Russia and the formation and ascendancy of the Russian Empire to 1855. (Every two years)</td>
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<td>HIS 328</td>
<td>The Russian Empire and the Soviet Regime (3 hours)</td>
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<td>Russian history since 1856 with emphases on social, political, and diplomatic developments, the Russian Revolution, and the rise of the Soviet state. (Every two years)</td>
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<td>HIS 330</td>
<td>The First and Second World Wars (3 hours)</td>
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<td>An examination of the technologies, military campaigns, war aims of the belligerents, and development of strategy and tactics during and between the world wars of the twentieth century. (Every year)</td>
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<td>HIS 332</td>
<td>An Intellectual History of Modern Europe (3 hours)</td>
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<td></td>
<td>A study of the Western identity in its rational, romantic, and existential forms. Close attention is given to the relation of ideas to social change since the Renaissance. (Every two years)</td>
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<tr>
<td>HIS 333</td>
<td>Russian History Study Tour (3 hours)</td>
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<td>Prerequisite: one HIS course or permission of the instructor.</td>
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<td>A study tour to historic and cultural points of interest in Moscow, St. Petersburg, and one other Russian city. Seminars, to be conducted both abroad and on campus, may include such topics as the history of the Kremlin; post-Cold War Russian society; Peter the Great and the westernization of Russia, and the like. Several papers will be required. The travel component of this course may be offered during May Term or between fall and spring terms. If the latter, students will officially enroll in and complete the work for the course during the following spring term. (Occasional)</td>
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HIS 340. Critical Themes in Western Civilization (3 hours)
A team-taught course addressing crucial themes that transcend conventionally defined fields of Western history, typically by pertaining to two or more continents. (Occasional)

HIS 352. Colonial and Revolutionary America (3 hours)
The development of a noticeably American society from its European, African, and Indian roots. Topics include cultural interaction, early Chesapeake and New England settlements, mercantilism, the Great Awakening, and the causes of revolution. (Every two years)

HIS 353. Jeffersonian and Jacksonian America (3 hours)
An examination of the early republic. Attention is paid to political, social, and economic topics, including the Constitution and political parties, reform movements, revivalism, slavery, westward expansion, industrialism, and democratic and republican ideologies. (Every two years)

HIS 354. Frontier and Indian History (3 hours)
A survey of eastern North American Indians and their relationship with Europeans on the frontier from earliest contact to the Indian Removal of the 1830s. Topics include Indian culture and society, changes in Euro-Indian relationships over time, and the impact of the frontier on European-American history. (Every two years)

HIS 356. The Civil War and Reconstruction (3 hours)
(Same as AFR 356)
A study of the causes of the American Civil War, the major military campaigns and engagements, and the problems of the nation after the war. (Every two years)

HIS 361. The Old South (3 hours)
(Same as AFR 361)
The study of the American South from the beginnings of European settlement to the Civil War. Slavery, the development of southern culture, and other topics are emphasized. (Every two years)

HIS 362. The New South (3 hours)
(Same as AFR 362)
A study of the American South from Reconstruction to the present. Race relations, the evolution of southern culture, and other topics are emphasized. (Every two years)

HIS 363. African American History (3 hours)
(Same as AFR 363)
An overview of the African American experience with emphasis on the following topics: life under slavery; conditions among free blacks during the antebellum period; actions of blacks during the Civil War and Reconstruction; reactions of blacks to the rise of virulent white racism after Reconstruction; and the roots, achievements, and transformation of the civil rights movement. (Every two years)

HIS 365. History of Georgia (3 hours)
A political, economic, social, and cultural survey of Georgia from its founding to the present. (Every summer)

HIS 370. An Intellectual History of America (3 hours)
A study of the main economic, political, religious, and social ideas that have shaped American history from its European origins to the present. (Every two years)

HIS 377. U.S. Women’s History, Colonial Era to the Present (3 hours)
(Same as WGS 377)
A study of the meaning and place of women in U.S. society from the colonial era to the pres-
ent through major secondary works and selected primary documents in the field. Students address major themes in U.S. women's history, including family, sexuality, work, and reform, within the broader context of American history. In addition, this course addresses the historiography, implications, methodologies, and future directions of the discipline. (Every two years)

**HIS 395. Studies in Historiography** (3 hours)
Prerequisites: HIS 111, 112, 165, 295 for history majors; two 100-level history courses for history minors; instructor permission for all others
A comparative study of classic and contemporary works of history, emphasizing the different priorities, assumptions, and approaches of Western historians from antiquity to the present. (Every year)

**HIS 401. Practicum in Public History** (1-3 hours)
Prerequisites: HIS 165, 295, and permission of the instructor.
A research-oriented internship on a topic of local or regional historical interest, culminating in a written project appropriate to the topic addressed. The course does not count towards the minimum credit requirements for the 30-hour major or the 15-hour minor. (Occasional)

**HIS 481. Seminar on Selected Topics in American History** (3 hours)
A seminar involving reading, discussion, and independent research on a specific topic in American history. (Occasional)

**HIS 491. Seminar on Selected Topics of European History** (3 hours)
A seminar involving reading, discussion, and independent research on a specific topic in European history. (Occasional)

**HIS 495. Research Seminar in History** (3 hours)
Prerequisite: HIS 295.
A course restricted to students majoring in history. Emphasizing intensive research conducted by the individual student and directed by instructors, the seminar enables students to compare historical methods and perspectives, examine specific historical problems, and sharpen their skills as researchers and writers. (Every fall)

**HIS 499. Supervised Independent Research** (3 hours)
Prerequisite: junior or senior status and consent of the instructor.
Intensive reading on a selected topic in an area of special interest to the student. The program of study must be agreed upon with the instructor and cleared with the chair of the department in advance of registration. (Occasional)

**HONORS PROGRAM (HON)**
Sarah E. Gardner, Director of Honors Program / Associate Professor of History

Mercer University’s Honors Program seeks to enrich the learning environment for both students and faculty members. By doing so, it invites new and higher levels of excellence in student research and creative accomplishments. It particularly works to foster a sense of academic community among faculty members and students of outstanding ability through its cultural events, its sponsored activities, and its four-year, interdisciplinary course of study that culminates in a project.

The curriculum is flexible enough to accommodate students who are pursuing a wide variety of majors in Mercer’s undergraduate colleges and schools. The program’s core provides students with a unifying and coherent experience throughout their four years at Mercer. Electives allow students to direct their own course of study tailored to their own interests and degree plans.
The Honors program emphasizes research, service learning, and study abroad. Myriad opportunities to learn in different ways await exceptionally talented and promising students, adding value to their campus experience and enhancing their preparation for life after graduation.

Each undergraduate school or college on the Macon campus has an Honors Program. The following details the requirements for the College of Liberal Arts’ Program.

Entering freshmen of outstanding potential are invited to participate in the College of Liberal Arts’ Honors Program. Indicators of potential for success in this program include high school grade point average, class rank, and SAT scores.

Participation in the program is by invitation only. The size of the program is strictly limited to achieve the goals of academic community that are at its core. In most cases, invitations to enter the Honors Program are extended prior to a student’s first semester at Mercer. Occasionally, students beyond the first semester and transfer students may also be invited to join. Students who have accumulated more than 60 semester hours credit toward the baccalaureate degree cannot be admitted to the program.

Students who enter the program will be expected to achieve and maintain a cumulative Mercer grade point average of 3.5 or better. Program participants whose cumulative grade point average falls below 3.5 will be placed on Program probationary status for a semester. If they do not restore the 3.5 cumulative grade point average in the succeeding semester, or if they fall beneath such a grade point average in any succeeding semester, they will not be allowed to continue in the program.

Those students fulfilling all requirements for the College of Liberal Arts’ Honors Program in addition to their bachelor’s degrees will receive their degrees with “University Honors” if they have attained a grade point average of 3.5 or above for all work completed at Mercer.

Core Requirements

Honors Program students enrolled in the College of Liberal Arts must fulfill the following core requirements.

First Year

Fall
HON 101 – First Year Honors Seminar
GBK 101 – Among Gods and Heroes

Spring
HON 102 – First Year Honors Seminar

Second Year

Fall
HON 261 – Sophomore Honors Colloquium

Third Year

Fall
HON 361 – Junior Honors Colloquium

Fourth Year

Fall or Spring
HON 496 – Honors Senior Project or equivalent

Additional Requirements

Honors Program students enrolled in the College of Liberal Arts must also fulfill these additional requirements.

Additional Hours: Students must take an additional twelve hours selected from the following course sequences. These courses can be taken at any time during the sopho-
more-senior years. Students must choose one course from at least two different sequences.

HON 250-251 – Summer Study Abroad Trip (3 hours each)

Up to six hours of study-abroad or travel-study courses may be substituted for this requirement if approved by the Honors Program Director.

HON 310-311 – Seminar on Selected Topics in Honors (3 hours each)

HON 320-321 – Honors Service Learning Seminar (3 hours each)

HON 362 – Honors Post-Graduate Preparation Colloquium (1 hour)

Cultural Events: Students must participate in at least two Honors Program sponsored cultural events at some point during their four years at Mercer. The program will sponsor one event per semester.

Study Abroad: Students must spend either a summer or a semester studying abroad or satisfy this requirement through travel-study courses or other courses completed in a study-abroad context that have been approved by the Honors Program Director.

Program Curriculum

HON 101. First Year Honors Seminar I (1 hour)
This course introduces first year honors students to the Honors Program at Mercer University. Students meet weekly in seminar format to read, to write about, and to discuss works chosen by the individual instructor. This course is required of all first year CLA Honors students. (Every fall semester)

HON 102. First Year Honors Seminar II (1 hour)
Students meet weekly in seminar format to read, to write about, and to discuss works chosen by the individual instructor. This course is required of all first year CLA Honors students. (Every spring semester)

HON 250. Called to Care (3 hours)
Prerequisites: HON 101 and 102.
This unique Honors course offers students a summer opportunity to work one week at Mercer and then spend three weeks abroad. While in Macon, students will meet in class, discuss several of the readings, and engage in service and observation activities. While abroad, students will meet in class, discuss additional readings, participate in regular reflection sessions, and become observers and workers in a service-learning activity. Both in Macon and abroad, many aspects of care will be explored. Other study-abroad courses containing a service-learning component may satisfy the same Honors Program requirement as this course. This course carries with it a required service-learning component. (Summer sessions only)

HON 251. Encountering the Other (3 hours)
Prerequisites: HON 101 and 102.
We often define ourselves against the “other” in our lives. The definition can include our encounter with the “Other” found in the spirit-world or the “other” found in the lives of people who look, think, or act differently from us. The purpose of this Honors seminar is to engage in a four-week discussion about the other in our home context (Macon, GA or the southeastern U.S.) and then in a study abroad context. We will embark on this journey by reading novels, essays, poems, visiting Cathedrals and immigrant communities, and walking through museums and art galleries. Through the activities and assignments during the four weeks,
we will participate in a conversation about what it means to be human. Other study-abroad courses satisfy the same Honors Program requirement as this course. (Summer sessions only)

HON 261. Honors Sophomore Colloquium (1 hour)
This colloquium will provide a forum in which Honors students hear Mercer faculty and visiting scholars discuss the nature of their research. This class will give students the chance to encounter scholars who are at various stages in the research and writing process, with the aim of introducing students to the ongoing nature of research. This course is required of all sophomore Honors students and is graded on an S/U basis. (Every fall semester)

HON 310. Seminar on Selected Topics in Honors I (3 hours)
An interdisciplinary seminar involving reading, discussion, and independent student-directed research on a specific topic not traditionally offered in Mercer’s curriculum. May be repeated one time with a different topic. This course is open to all second-year through fourth-year Honors students. (Every fall semester)

HON 311. Seminar on Selected Topics in Honors II (3 hours)
An interdisciplinary seminar involving reading, discussion, and independent student-directed research on a specific topic not traditionally offered in Mercer’s curriculum. May be repeated one time with a different topic. This course is open to all second-year through fourth-year Honors students. (Every spring semester)

HON 320. Honors Service Learning Seminar I (3 hours)
A seminar emphasizing student-directed applied field projects on a specific topic. May be repeated one time with a different topic. This course is open to all second-year through fourth-year Honors students. (Every fall semester)

HON 321. Honors Service Learning Seminar II (3 hours)
A seminar emphasizing student-directed applied field projects on a specific topic. May be repeated one time with a different topic. This course is open to all second-year through fourth-year Honors students. (Every spring semester)

HON 361. Honors Junior Colloquium (1 hour)
This colloquium will provide a forum in which participants in the honors program can discuss their evolving ideas about their honors projects. The class will give students the chance to try out their early thinking on each other, with the aim of eliciting cogent and constructive response. This course is required of all junior Honors students and is graded on an S/U basis. (Every fall semester)

HON 362. Honors Post-Graduate Preparation Colloquium (1 hour)
Students are provided with information relevant to graduate and professional study as well as national scholarships for study beyond the undergraduate level. Students also learn about grant writing, interviewing techniques, and project preparation. This course is open to all second-year through fourth-year Honors students. Graded on an S/U basis. (Every spring semester)

HON 496. Senior Project (3 hours)
The project may take one of a variety of forms, ranging from the creation of an artistic work to research in the student’s the student’s major discipline. Each student works with an advisory committee, one of whose members is the Honors Program Director and one designee from the student’s major department. A third member may be appointed if needed. In performance disciplines, juries fulfill the role of advisory committees. The project culminates with a public presentation. (Every year)
INFORMATION SCIENCE AND TECHNOLOGY (IST)

For a description of the courses offered in information science and technology, along with the requirements for a major or minor in this discipline, see the heading COMPUTER SCIENCE in this catalog.

INTERDISCIPLINARY STUDIES (IDS)

Mary Ann Drake, Chair/Professor
Randall Harshburger, Associate Professor
Douglas Thompson, Assistant Professor

The Department of Interdisciplinary Studies consists of five multi-disciplinary programs that provide a holistic and integrated approach to a liberal education by bringing the resources of our heritage and disciplines to bear on contemporary cultural issues and concerns. For the description of these programs of study, see the following headings in this catalog:
FIRST-YEAR SEMINAR (FYS) including First-Year Seminar Experiential (FYS-X)
GREAT BOOKS (GBK)
SCIENTIFIC INQUIRY (SCI)
SENIOR CAPSTONE PROGRAM (SCP)

JOURNALISM AND MEDIA STUDIES (JMS)

John J. Chalfa, Chair/Associate Professor
Cynthia Gottshall, Professor
James E. Black, Assistant Professor

The mission of the Department of Journalism and Media Studies is to offer students a liberal arts perspective on the study of media and journalistic storytelling by exploring the convergence of print and broadcast journalism, film, video, radio, television, and online media. The department concentrates its efforts on the practice of journalism and media storytelling as well as the impact of media on society, culture, and individuals; the development and understanding of public media policy; and the planning and development of media systems. The department is concerned with the student's ability to effectively communicate in mass-mediated texts and to act in critical and informed ways within a world increasingly mediated, shaped, and filtered by proliferating modes and channels of communication. Students cannot be satisfied merely to describe media forms and analyze media texts - though these skills are crucial. They must also be empowered with a thoughtful, ethical sense of their own roles within today's global media systems as well as within their local communities. The curriculum of the department is interdisciplinary, critical, and scholarly, and the program integrates coursework in media theory, history, criticism, and practice.

The major in Media Studies consists of a minimum of 30 hours, including as a core JMS 200, JMS 210 or JMS 220 or JMS 225, JMS 301, JMS 400, and JMS 401. An additional 15 hours must be taken in JMS courses numbered 200 through 495 to meet the minimum requirement for hours. At least 12 of those additional 15 hours must be at the 300 level or above. JMS 290 and JMS 498 do not count towards the major.

The minor in Media Studies consists of a minimum of 15 hours, including JMS 101 or JMS 200 and 12 hours of JMS courses numbered 201 through 495. At least nine hours of courses must be at the 300 level or above. JMS 290 and JMS 498 do not count towards the minor.
In order to earn departmental honors in Media Studies, a Media Studies major must meet the following requirements: (1) a minimum overall grade point average of 3.5, and (2) achieve a grade point average of 3.5 in the Media Studies major.

The major in Journalism consists of a minimum of 30 hours, including JMS 150, JMS 260, JMS 375, JMS 400, and JMS 401. In addition, two courses must be selected from JMS 210, JMS 324, JMS 340 or JMS 350, JMS 360, JMS 362, and JMS 430. An additional three courses must be selected from JMS 240, JMS 301, JMS 330, JMS 370, JMS 381, and JMS 490.

The minor in Journalism consists of a minimum of 15 hours, including JMS 150, JMS 260 and nine hours selected from JMS 324, JMS 330, JMS 381, JMS 400, JMS 401, and JMS 430.

In order to earn departmental honors in Journalism, a Journalism major must meet the following requirements: (1) a minimum overall grade point average of 3.5, and (2) achieve a grade point average of 3.5 in the Journalism major.

Students may not obtain a major in both journalism and media studies.

All Journalism and Media Studies courses with a required Lab component are taught in the department’s Digital Design Studio using Apple Macintosh computers. Students who wish to use their own computers should purchase Macintosh laptop or desktop systems with Final Cut Studio 2, Logic Express 8, and Adobe Creative Suite 3 Design Premium software.

JMS 101. Media in Society (3 hours)
A survey of contemporary media with a focus on developing media literacy, and understanding media industries and the consequences of media messages on individuals, society, and culture. (Every semester)

JMS 150. News Writing for Converged Media (3 hours)
An introduction to writing news in a professional environment and to the forms journalism takes in a converged, digital age. Special emphasis is given to introduce the student to what is news and how it is found, fact gathering, story structure, and collecting information from primary and secondary sources. Lab Required. (Every semester)

JMS 200. Digital Media Scripting and Production (3 hours)
A workshop approach to developing a basic understanding of the hardware and software tools used in creating and producing digital audio, video, and interactive media messages. Lab Required. (Every year)

JMS 210. Narrative Techniques in Digital Media (3 hours)
An introduction to writing for the screen, this course focuses on the conventions and craft of narrative storytelling. Students work individually and as part of a creative team to tell stories for the screen in terms of action and characters. Short individual writing exercises receive peer analysis and review in a workshop setting. Students will analyze produced films and their scripts, and will provide a final screenplay of their own which adheres to the conventions of narrative storytelling and dramatic structure. Lab Required. (Every other year)

JMS 220. Introduction to Narrative Film (3 hours)
This course will introduce students to the fundamentals of film language and provide conceptual tools needed to create and/or critically analyze narrative films. Topics will include: the examination of narrative film form; exploration of how films are classified by genre; the examination of how film techniques such as mise-en-scene, cinematography, editing, narrative, performance, and sound contribute to film form. The course will explore how these structural elements function to express complex meanings. (Every year)

JMS 225. Introduction to Nonfiction Film (3 hours)
This course offers a conceptual overview of the forms, strategies, structures and conven-
tions of nonfiction film and video. The course focuses on social and political documentaries, personal essay films, digital stories, news documentaries, and narrative nonfiction techniques. (Every year)

JMS 240. Contemporary Issues and Media (3 hours)
This course examines the way that contemporary issues are shaped and manipulated by the media through framing and agenda setting. The course uses basic theoretical principles from both mass media and journalism studies to provide students with the ability to think critically and speak persuasively about the issues currently in the news. (Every other year)

JMS 260. Civic and Community Journalism (3 hours)
This course will emphasize news gathering techniques used in print, broadcast, and online journalism. The course will require students to apply their understanding of the key elements of civic journalism including: public listening techniques, advocacy vs. objectivity, framing, citizen involvement, problem solving, and coordination of media efforts. Lab activities complement classroom activities. (Every semester)

JMS 290. Journalism/Media Practicum (1 hour)
Prerequisite: consent of instructor.
Practical experience in working in student radio or video or journalism. May be repeated for up to 3 credit hours. Graded on S/U basis. Does not count towards major or minor in Journalism or Media Studies. (Every semester)

JMS 301. Media Criticism (3 hours)
This course examines media texts as cultural artifacts from a variety of critical and theoretical perspectives. We will focus on film, television, and New Media in our examination of the meanings, pleasures, and practices of one of the most widespread sign systems of our time. The approaches/methods will include: semiotics, auteur theory, genre theory, feminist theories, cultural studies, postmodernism, and cybercriticism. (Every year)

JMS 310. Race, Gender and Media (3 hours)
(Same as AFR 310 and WGS 310)
This course will critically examine the role of the media in enabling, facilitating, or challenging the social constructions of race and gender in our society. We will consider the mass media to be one among many other social institutions such as religion, education, and family, which strongly influence our everyday notions of race and gender. The course will address a variety of entertainment and news content in print and electronic media. (Every other year)

JMS 324. Investigative Reporting (3 hours)
Prerequisite: JMS 260.
This course focuses on investigative reporting with an emphasis on in-depth newsgathering techniques to prepare students for reporting public affairs in print, broadcast, and online media. Depth reporting encompasses coverage of local, state, national government, courts and criminal justice, campaigns and elections, business and economics, education, science and health, religion, and sports. Lab Required. (Every year)

JMS 330. Editing/Design (3 hours)
This course will teach students to prepare copy and related material for publication, with emphasis on professional writing, editing accuracy, clarity and presentation using desktop publishing techniques. Lab activities complement classroom instruction. Lab Required. (Every other year)

JMS 340. Digital Audio (3 hours)
Prerequisite: JMS 200.
This course covers the fundamentals of audio recording and mixing, and post-production
sound. Topics include physical & perceptual acoustics, basic electricity, analog & digital recording principles, console operation, microphone selection & placement, and sound engineering in live and studio situations. No previous musical background or recording experience required. Lab Required. (Every year)

**JMS 350. Digital Filmmaking** (3 hours)
Prerequisite JMS 200.
This course introduces students to the creative and technical aspects of small format video production as well as the basic principles and language of film/video. Production projects will be oriented toward developing the student's creative vision and students will learn to express their ideas and understanding through video. By producing short video projects, students will use film techniques to tell their stories, as they learn the art of moviemaking and gain technical proficiency. Lab Required. (Every year)

**JMS 360. Digital Storytelling** (3 hours)
Prerequisite: JMS 200
This course will explore digital storytelling as a form of narrative nonfiction film. Students will learn how to craft engaging digital stories, analyze and critique digital stories, and work with the New Media tools necessary to create and present stories in digital form. Lab Required. (Every year)

**JMS 362. Documentary Storytelling** (3 hours)
Prerequisite: JMS 200
An advanced production course covering nonfiction formats. The course explores directing the documentary video with an emphasis on the analysis of nonfiction films; and writing, planning, directing, and editing class projects. The class will examine the documentary filmmaker's role, responsibilities, and methods of working in all phases of pre-production, production, and post-production. Lab Required. (Every other year)

**JMS 365. Storytelling and Social Change** (3 hours)
Prerequisite: JMS 360 or 362
This is an intensive, hands-on editorial and production course in which students pitch their ideas and then research, report, produce, shoot, write, and edit their own short documentary films on social issues affecting the local community, the U.S., or the world. Readings and discussions focus on current news, media ethics, media literacy, the declining credibility of the press, journalists' responsibilities to the public, social justice issues, First Amendment principles, corporate media ownership, media images of women and people of color, and the powerful role of media (TV news, documentaries, New Media, digital storytelling) as tools for civic engagement and positive social change. Lab Required. (Every other year)

**JMS 370. Public Relations** (3 Hours)
This course will address the theory and practice of public relations, how public relations operates in organizations, its impact on publics and its functions in society. Students will study the professional development of the field; concepts, issues, and principles in the practice; and models and theories guiding the practice. There will be an emphasis on case studies, lectures, and experimentation with major public relations tools and practices. (Occasional)

**JMS 375. Journalism and Media History** (3 hours)
This course is designed to examine journalism from the first crude hand presses and wooden types, through the Colonial and Revolutionary eras in America, the pioneer and western settlement eras, the Civil War, the expansion West, the time of Yellow journalism, the rise of the magazine, the rise of the radio, the rise of television, the coming of computer technolo-
gy, corporate ownership, the vast media conglomerates that have emerged in the last decades, and other areas that define journalism today. (Every other year)

**JMS 381. Online Journalism (3 hours)**

Online Journalism uses computers, readings, and discussions to learn about online news publishing. The class will include lectures and discussion on New-Media themes; the business, ethical, and legal implications of publishing online; the characteristics that distinguish news Web sites from print and broadcast operations; the advent of the 24-hour news cycle; and guidelines for doing research on the Internet. This course will cover a wide range of cutting-edge topics, including online social, cultural, political, legal and economic issues. Lab Required. (Every other year)

**JMS 400. Media Ethics (3 hours)**

This course examines the process of ethical decision making in professional media communication and the principles on which ethical decisions are based. Through readings, case studies, class discussions and presentations, students will examine the role of ethics in different journalism and mass communication contexts, including reporting, digital storytelling, blogging, advertising, and public relations. (Every year)

**JMS 401. Media Law (3 hours)**

This course is designed to give students an understanding of the legal environment that affects mass communication professionals, including journalists, public relations practitioners and advertising professionals. The course examines the historical development of the notion of free expression, explores the legal limitations on expression, and seeks to develop a framework for evaluating the fluid legal landscape that communicators face. (Every other year)

**JMS 430. Advocacy Journalism (3 hours)**

Prerequisite JMS 150 and JMS 260.

This course is an advanced news reporting and writing course exploring the important connection between communities and their print and broadcast media. Students will better understand the media's role in a democracy empowering people to engage in public life. Special emphasis is placed on news judgment, responsibility to the community and covering the community through creative partnerships. Through cooperative learning projects and research, students will use a model of civic journalism to develop a project for the community. (Every other year)

**JMS 490. Special Topics in Journalism and Media (3 hours)**

A study of some significant topic in journalism or mass communication, which is not available through regular course offerings. May be taken twice, with different topics, for a maximum of six hours credit. (Occasional)

**JMS 495. Directed Independent Study in Journalism and Media (3 hours)**

Prerequisite: junior or senior status and consent of the instructor.

Intensive reading on a selected topic in an area of special interest to the student. The program of study must be agreed upon with the instructor and cleared with the chair of the department in advance of registration. May be repeated with different projects/topics, but total credit may not exceed 6 hours. (Occasional)

**JMS 498. Internship in Journalism and Media (1-9 hours)**

Prerequisite: junior or senior status and consent of instructor

An internship of at least 15 weeks with an approved news medium, public relations or publicity agency, or other suitable publication or agency. The student will serve as an apprentice under professional supervision with regular consultation with his/her journalism/media
studies professor at Mercer. May be repeated for a total maximum of 9 hours. Does not count towards major or minor in Journalism or Media Studies. (Every semester)

**MANAGEMENT (MGT)**

For description of the program of study in this area, and of the courses offered, see the section EUGENE W. STETSON SCHOOL OF BUSINESS AND ECONOMICS in this catalog.

**MARKETING (MKT)**

For description of the program of study in this area, and of the courses offered, see the section EUGENE W. STETSON SCHOOL OF BUSINESS AND ECONOMICS in this catalog.

**MATHEMATICS (MAT)**

David G. Nelson, *Chair/Associate Professor*
Curtis D. Herink, *Professor*
Jeffrey K. Denny, Kedrick Hartfield, Keith E. Howard, Hope McIlwain, Margaret Symington, and Carolyn Yackel, *Associate Professors*
Julie C. Beier, *Assistant Professor*
Sybil Blalock, *Instructor*

The Department offers both Bachelor of Arts and Bachelor of Science degrees in mathematics. All majors are required to pass a senior comprehensive examination in mathematics and to take the following core courses: MAT 191, 192, 260, 293, 340, 499, and CSC 204.

The Bachelor of Arts degree requires 30 hours in mathematics and 4 hours in computer science. The requirements are the core courses, either MAT 461-462 or MAT 481-482, and two additional courses numbered 320 or above.

The Bachelor of Science degree requires 36 hours in mathematics, 8 hours in physics, and 4 hours in computer science. The requirements are the core courses; three courses chosen from MAT 461, 462, 481, and 482; PHY 161, 121L, 162, 162L; and three additional mathematics courses numbered 320 or above.

The Department recommends that those students planning to pursue graduate study in mathematics select their mathematics electives from MAT 320, 330, 335, 350, 462, and 482. Those students planning to pursue a doctoral degree are also strongly advised to take GER 111-112 or FRE 111-112.

The Department recommends that those students planning a career in applied mathematics choose their mathematics electives from MAT 320, 330, and 335. In addition, MAT 225 is highly recommended.

Majors may attain Departmental Honors in mathematics by meeting the following requirements: (1) apply for honors during the second semester of the junior year; (2) attain a grade point average of 3.50 in the mathematics courses applied toward the major; (3) enroll in MAT 402 and complete a research paper under the direction of a faculty member in the department; (4) present the results of the research in colloquium; (5) receive departmental approval for the entire project.

The requirements for a minor in mathematics are MAT 191, 192, and either option (a) 260 and two additional courses numbered 320 or above; or option (b) 225, 340, and one additional course numbered 320 or above.
Secondary Teacher Certification Program in Mathematics

Teacher certification in mathematics (6-12) is available to mathematics majors who complete MAT 320 and 350. (MAT 225 is recommended.) Students planning to teach mathematics in secondary school should notify their advisor and contact the secondary education advisor in Tift College of Education. Required courses in education include EDUC 210, 220, 256, 283, 357, 398, 399, 406, 456, 469, 476, 485, and 492. Please consult the TIFT COLLEGE OF EDUCATION section of this catalog for more details.

Mathematics Courses

Either MAT 095 or a satisfactory score on the Math Index or the mathematics placement exam is prerequisite to all other mathematics courses except MAT 104.

MAT 095. Intermediate Algebra (3 hours)
Credit earned in MAT 095 does not count toward the minimum number of hours required for graduation. An introductory course in algebra which includes the study of the fundamental algebraic operations, factoring, algebraic fractions, equations and inequalities, exponents and radicals. (Every semester)

MAT 104. Introduction to Finite Mathematics (3 hours)
This course is designed to provide students with some insight into the beauty and challenge of mathematics and its impact on society. Topics include logic, shape, quantity, change, uncertainty and some fundamental dichotomies (finite and infinite, discrete and continuous). (Every semester)

MAT 121. Concepts in Calculus (3 hours)
Prerequisite: MAT 095 or equivalent.
The course emphasizes the concepts in differential and integral calculus and applications of those concepts. The material is made accessible to students with a limited mathematical background by restricting attention to a simple class of functions—polynomial functions in most cases and rational functions where appropriate. (Occasional)

MAT 126. Elementary Statistical Methods (3 hours)
Prerequisite: MAT 095 or equivalent.
An introduction to basic descriptive and inferential statistics. Includes measures of central tendency and variability; the binomial, normal, student’s t, and chi-square distributions; correlation techniques involving Pearson’s r. The emphasis is on applications rather than on mathematical theory. Credit for MAT 126 will not be granted after credit has been earned in MAT 320. (Every semester)

MAT 131. College Algebra: Functions and Graphs (3 hours)
Topics include graphs and functions (linear, quadratic, polynomial, rational, exponential, and logarithmic). Credit cannot be earned in both MAT 131 and MAT 133. (Every semester)

MAT 133. Precalculus (4 hours)
Prerequisite: a grade of C or better in MAT 095 or equivalent.
Topics include graphs, functions (linear, quadratic, polynomial, rational, exponential, logarithmic, trigonometric, and inverse trigonometric), and trigonometric identities. Credit cannot be earned in both MAT 131 and MAT 133. (Every semester)

MAT 141. Calculus for the Social Sciences (3 hours)
Prerequisite: MAT 131, 133 or equivalent.
Students who have not completed MAT 133 and who plan to register for this course should take the mathematics placement exam. A high score on this exam will meet the prerequisite...
for the course. A study of the derivative of algebraic, exponential, and logarithmic functions and an introduction to integration. Business applications are stressed. Credit cannot be earned in both MAT 141 and MAT 191. Students who plan to major in mathematics, chemistry, computer science, or physics should take MAT 191. (Every semester)

MAT 191. Calculus I (4 hours)
Prerequisite: a grade of C or better in MAT 133 or equivalent.
Students who have not completed MAT 133 and who plan to register for this course should take the mathematics placement exam. A high score on the exam will meet the prerequisite for the course. Topics include: A study of functions involving limits, continuity, derivatives, and antiderivatives; the definite integral and Fundamental Theorem of Calculus. Credit can be earned for only one of MAT 141 and 191. (Every semester)

MAT 192. Calculus II (4 hours)
Prerequisites: a grade of C or better in MAT 191 or consent of the instructor.
Topics include: Methods of numerical integration, applications of the definite integral, techniques of antidifferentiation, improper integrals, infinite series, differential equations, and polar coordinates. (Every semester)

MAT 225. Topics in Discrete Mathematics (4 hours)
Prerequisite: MAT 191.
Topics include sets, functions, Boolean algebra, elementary graph theory, techniques of counting, and methods of proof (including induction and contradiction). (Every semester)

MAT 260. Introduction to Abstract Mathematics (3 hours)
Prerequisite: MAT 192.
A course designed to facilitate the transition to mathematics courses in which the student is expected to prove theorems. Topics include sets, logic, methods of proof, relations, and number systems. (Every fall semester)

MAT 293. Multivariable Calculus (3 hours)
Prerequisite: MAT 192.
Topics include vector calculus; limits and continuity of functions of several variables; partial derivatives and applications; multiple integrals and applications. (Every semester)

MAT 320. Introduction to Probability and Mathematical Statistics (3 hours)
Prerequisite: MAT 192.
A study of sample spaces, conditional probability and independent events; random variables and their distributions both discrete and absolutely continuous; expected value; variance, and regression; Law of Large Numbers and Central Limit Theorem; sampling; estimation; testing of hypotheses. Credit for MAT 126 will not be granted after credit has been earned in MAT 320. (Every spring semester)

MAT 330. Introduction to Differential Equations (3 hours)
Prerequisite: MAT 192.
A study of ordinary differential equations using qualitative, numerical and analytic approaches. Topics include first-order differential equations, second-order linear differential equations, systems of differential equations, Laplace transformations and applications. (Every semester)

MAT 335. Numerical Methods (3 hours)
(Same as CSC 335)
Prerequisites: MAT 192 and ability to write programs in a high-level computer language.
A study of numerical methods for the solution of mathematical problems and computer
application of those methods. Topics will include: methods such as the bisection algorithm and fixed point iteration for the solution of equations with a single variable, interpolation and polynomial approximation, numerical differentiation and integration, solution of systems of linear equations, and least squares approximation. Offered infrequently. (Every two years)

**MAT 340. Linear Algebra (3 hours)**
Prerequisites: MAT 225 or 260, or consent of instructor.
An introduction to the algebraic structure of vector spaces; the theory of matrices; the application of matrices to the study of vector spaces; systems of linear equations and linear transformations. (Every spring semester)

**MAT 345. Applied Mathematical Modeling (3 hours)**
Prerequisite: MAT 330 or permission of the instructor
This course focuses on mathematical modeling of phenomena from biology, chemistry, engineering, medicine, and physics. Students learn the tools and techniques of modeling using differential equations, matrix algebra, and statistics and learn to formulate a variety of models. Students engage cooperatively and individually in the formulation of mathematical models and in the techniques of investigating those models. Several major projects throughout the semester give the students experience in applying the tools and formulation of models. Class sessions consist of lectures and hands-on experimentation with projects using several computational tools. (Every two years)

**MAT 350. College Geometry (3 hours)**
Prerequisite: MAT 340.
A rigorous study of the properties of Euclidean geometry, with special attention to incidence and metric properties, and introduction to elementary properties of non-Euclidean geometries. Offered infrequently. (Every two years)

**MAT 390. Topics in Mathematics (Subtitle) (1-3 hours)**
Credit will be determined based on the particular topic studied. A student may receive hours awarded as one, two, or three, and no more than three hours per course will be awarded, and total hours given will not exceed six. When credit in the proposed course is given, the topic studied will be stated as a subtitle. (Occasional)

**MAT 401. Directed Independent Study (1-3 hours)**
Prerequisite: consent of instructor.
This course is intended to provide the student with the opportunity to study independently in an area of interest. Arrangement with the department chair and the instructor is required. (As required)

**MAT 402. Directed Independent Research (1-3 hours)**
Prerequisite: consent of instructor.
This course is intended to provide the student with the opportunity to do supervised research in an area of interest. Arrangement with the department chair and instructor is required. (As required)

**MAT 461-462. Abstract Algebra I and II (3 hours)**
Prerequisite: MAT 340.
A study of groups, rings, and fields. Topics will include homomorphisms of groups and rings, quotient structures, polynomial rings, and extension fields. (Every two years)

**MAT 481-482. Real Analysis I and II (3 hours)**
Prerequisites: MAT 293 and 340.
A rigorous introduction to the system of real numbers; a study of the consequences of continuity, differentiability, integrability, and the elementary topology of the real numbers. (Every two years)
MAT 499. Senior Seminar in Mathematics (1 hour)
A course designed to help students take a broad view of their mathematics education and to synthesize the disparate components of this education. Students will be expected to organize and deliver a mathematical presentation. (Every fall semester)

MILITARY SCIENCE (MIL)
Lietenant Colonel Frederick Arthur Eaton, Chair/Professor
Captain A.J. Cox, Assistant Professor
Master Sergeant James P. Daley, Senior Instructor

The ROTC four-year program is divided into the basic courses, which encompass the freshmen and sophomore years, and the advanced courses, which encompass the junior and senior years. A two-year ROTC program is available for students who make the decision to join ROTC later, and this program requires attendance at a summer Leaders Training Course at Fort Knox, Kentucky, between the sophomore and junior years. For students enrolled in the military science program for commissioning credit, the basic courses or the Leaders Training Course are prerequisite for the advanced courses. Military science courses include weekly leadership labs, physical training (for scholarship students, juniors and seniors), and one three or four-day field training exercise per semester (for juniors and seniors). Students may elect to compete for two, three, and four-year United States Army scholarships.

Participation in the commissioning portion of the ROTC program is not required for enrollment in military science courses. Any Mercer University student can complete the minor in military science with no service obligation. The military science minor consists of the following courses, totaling 15 hours: MIL 301, 302, 401, 402, and HIS 330.

Basic Courses

MIL 101. Introduction to the Army I (2 hours)
An introduction to the fundamental organization of the United States Army, Army Reserve and Army National Guard. Also included is an explanation of customs and traditions of military service, an introduction to basic first aid techniques, orienteering and general military subjects. Increased self confidence is gained through team study and activities in Basic Drill, Physical Fitness as well as small unit operations in both classroom and outdoor environments. One hour class and a required Leadership Lab plus optional participation in a three physical training program. Participation in weekend training exercises is also optional. May not be taken on S/U basis. (Every fall semester)

MIL 102. Introduction to the Army II (2 hours)
A continuation of Introduction to the Army I, this course continues with an understanding of the role of the Officer, Non Commissioned Officer and Warrant Officer in today's Army. Learn and apply the basic principles of effective leadership in both a classroom and laboratory environment and through interaction with upper division ROTC cadets. Classes in general military subjects continue, to include leadership development. One hour class and a required Leadership Lab plus optional participation in a three physical training periods per week. Participation in weekend training exercises is also optional. May not be taken on S/U basis. (Every spring semester)

MIL 201. Leadership I (2 hours)
Explore the leadership process through the study and application of ethics-based leadership skills that contribute to the building of effective teams/groups. Develop skills in oral
presentation, planning of events, coordination of group efforts, advanced first aid, land navigation and basic military tactics. Learn the fundamentals of the ROTC Leadership Assessment Program. Two hours and a required Leadership Lab plus optional participation in a thrice-weekly physical training program. Participation in weekend training exercises is also optional. May not be taken on S/U basis. (Every fall semester)

**MIL 202. Leadership II (2 hours)**
Introduction to individual and team aspects of military tactics in small unit operations. Includes the use of effective communication skills, making safety assessments, tactical movement techniques, planning for team safety and security and method for pre-execution checks. Learn techniques for training others as an aspect of continued leadership development. Two hours and a required Leadership Lab plus optional participation in a thrice-weekly physical training program. Participation in weekend training exercises is also optional. May not be taken on S/U basis. (Every spring semester)

**Advanced Courses**

**MIL 301. Tactics I (3 hours)**
The study of principles, methods and techniques used by successful leaders. Practical exercises in leadership, drill, command, and communications. Emphasis on physical fitness, squad operations and leadership. May not be taken on S/U basis. (Every fall semester)

**MIL 302. Tactics II (3 hours)**
Study of and practical exercises in the application of small unit tactics and the practical applications of leadership. Study of principles, methods, and techniques used by successful leaders. General study of military history, and its application to modern tactics and leadership. May not be taken on S/U basis. (Every spring semester)

**MIL 401. Command and Staff Functions (3 hours)**
Comprehensive studies of the procedures, policies, and functions of Army staffs and commanders. This continues the study of leadership as it applies to the military system, and introduces military ethics, military justice and Army training doctrine. May not be taken on S/U basis. (Every fall semester)

**MIL 402. Transition to Lieutenant (3 hours)**
This course is a comprehensive study of the primary duties of a junior Army officer. Course of instruction focuses on those skills needed by the new 2nd Lieutenant to assume their role in the Army leadership system. May not be taken on S/U basis. (Every spring semester)

**Additional Courses**

**MIL 451. Advanced Theory of Military Leadership I (1 hour)**
An independent study of military leadership at senior level echelons and the development of the US Army from its primitive origin to the present. Available only to MS V cadets who continue to receive ROTC scholarship after the completion of the advanced course. (Occasional)

**MIL 452. Advanced Theory of Military Leadership II (1 hour)**
An independent study to define the role of the military in the year 2030. Research the likely missions the United States Military will confront. Available only to MS V cadets who continue to receive ROTC scholarship after the completion of the advanced course. (Occasional)
MUSIC (MUS)

For description of the programs of study in this area, and of courses offered, see the section TOWNSEND SCHOOL OF MUSIC in this catalog.

PHILOSOPHY (PHI)

Charlotte Thomas, Chair/Associate Professor
Matthew J. Oberrieder, Creighton Rosental, and Edward F. Thomas, Assistant Professors

Philosophy at Mercer is dedicated to the Socratic motto that "the unexamined life is not worth living." Philosophy’s ultimate purpose is disciplined reflection on life's "big" questions, universal questions about the meaning of Being that have occupied human beings since the dawn of history. These questions, simply put, are "What are we?" and "Why are we?" That is, what is the ultimate nature of the universe we live in and what does it mean to be human in it? These animating questions immediately generate more detailed questions in metaphysics (what is ultimately real? Why should there be anything at all?), philosophy of religion (is there a mind at the foundation of things and is it accessible to us?), ethics (what belongs to living a good life and what values are worthy of our allegiance?) and aesthetics (what is the nature of beauty and the basis of artistic discrimination?). Answers to these questions are interconnected, and many answers are possible. And different answers have different implications for moral philosophy (how should we conduct ourselves in relation to other persons?) and social and political philosophy (how should we organize our lives together?). Moreover, the persistent pursuit of these questions reveals a constellation of other questions. For example, how are answers to such questions justified? This, in turn, leads to reflection on the scope, methods, and limits of human knowledge (what, if anything, can we know, and how can we know it?), which form the subject-matter of epistemology and philosophy of science, and also raises questions about the nature of thought and language that make up the disciplines of logic, semantics, and linguistic analysis. Philosophy, accordingly, may be thought of as the exploration of this web of questions.

A major may be earned by taking 30 semester hours in philosophy, and must include 311, 314 and 355; one course selected from 312, 313, 315, 316; and one course selected from 360, 361, 390.

Philosophy majors must complete a comprehensive examination consisting of essay questions on broad philosophical topics. These questions will require significant reference to philosophers and philosophic positions central to the western philosophical tradition. Students will be eligible to take this examination after completing 75 hours of course credit and at least two History of Philosophy courses (311, 312, 313, 314, 315, or 316). The philosophy comprehensive examination will be administered once each semester. Seniors intending to graduate in the Spring semester must first take the exam the previous Fall semester. Those intending to graduate in the Fall semester must first take the exam the previous Spring semester. Students who fail one question will be given an opportunity to re-take a partial examination during the same semester. Students who fail more than one question will be required to re-take the entire examination during a subsequent semester. A bank of questions from which the exam questions will be drawn will be made available to students at the beginning of each semester. Grades for this examination will be Partial Fail (PF), Fail (F), Pass (P), and Distinguished Pass (DP).

A minor may be earned by taking 15 semester hours in Philosophy, including two courses selected from 311, 312, 313, 314, 315 and 316.

Majors may attain Departmental Honors in philosophy by meeting the following requirements: (1) maintain an overall 3.5 grade point average in philosophy; (2) complete satisfactorily one of the following courses: 360, 361, or 390; (3) present an honors thesis based on a closely supervised research project to be approved by all members of the Department.
No 100-level courses have prerequisites. All 200-level courses have the following prerequisite: FYS 101. Prerequisites for all other courses are as listed.

PHI 180. Logic and Language (3 hours)
A study of the principles used in distinguishing correct from incorrect reasoning. Special emphasis will be placed upon the application of these principles to everyday language and reasoning. Topics to be studied include: informal fallacies, definitions, categorical propositions and syllogisms, elementary truth functional logic, truth and validity, and induction. (Occasional)

PHI 190. Introduction to Philosophy (3 hours)
An introduction to reading, writing, and thinking about philosophy. The western tradition of philosophical thought will define the subject matter of the course. Emphasis will be placed on the cultivation of a philosophical attitude and the development of the art of conceptual analysis and synthesis. Not open to seniors. (Every semester)

PHI 195. Introduction to Ethics (3 hours)
A study of the principal ethical traditions of Western culture and their application to contemporary moral issues and social problems. Not open to seniors. (Every year)

PHI 205. The Quest For Meaning (3 hours)
Prerequisite: FYS 101.
Questions of the meaning and purpose of human life are a dominant theme in our reflections on ourselves and our world. What are the sources of meaning in human life? What ideals and possibilities for human life have people in the past envisioned? How does the present age shape or meet our needs for meaning and purpose? The course is designed to explore these questions through readings in philosophy, theology, literature, and the social sciences. (Occasional)

PHI 220. Philosophy of Science (3 hours)
Prerequisite: FYS 101.
A study of the nature and logic of the sciences and an analysis of the relation of science to other human concerns: emphasis will be placed on the nature of scientific evidence, explanation, and theory, the nature and history of scientific discovery; the place of science in understanding humans, values, and society. Recommended for junior and senior science majors. (Every three years)

PHI 230. Political Philosophy (3 hours)
Prerequisite: FYS 101.
This course will provide an introductory examination of fundamental political issues such as the meaning and requirements of justice and the legitimate source of political authority. The course may be taught with an historical emphasis, by looking at prominent political philosophers, or with an emphasis on key topics in political philosophy. (Every three years)

PHI 240. Philosophy of Religion (3 hours)
Prerequisite: FYS 101.
A study of some of the major problems that arise in the encounter between philosophy and religious belief. (Every three years)

PHI 250. Philosophy of Mind (3 hours)
Prerequisite: FYS 101.
This course is an introductory survey in topics in the philosophy of mind. Topics that will be covered in the course include theories of the nature of mind (dualism, behaviorism, functionalism, etc.), theories of personal identity, and puzzles and problems relating to role and nature of consciousness. Other topics may include philosophical treatments of: mental cau-
sation, perception, mental content and/or artificial or non-human intelligence. (Every three years)

**PHI 260. Philosophy of Art**  
(3 hours)  
Prerequisite: FYS 101  
This course is a survey of the philosophy of art. Subjects may include, but are not limited to the nature of beauty, art as representation, aesthetics and the aesthetic experience, art and ethics, art as evoking or expressing emotions, the formal qualities of art, the relation between form and content, the intention of the artist, the art world, art in context, and the nature of the art object. (Every three years)

**PHI 290. Special Topics in Philosophy**  
(3 hours)  
Prerequisite: FYS 101.  
A study of some significant topic in philosophy. Suitable for students with no background in philosophy. May be repeated with a different topic. (Occasional)

**PHI 311. History of Philosophy I: Ancient Greek Philosophy**  
(3 hours)  
Prerequisite: one course in philosophy.  
A survey of ancient Greek philosophy, including the pre-Socratics, Plato, and Aristotle. (Every fall semester)

**PHI 312. History of Philosophy II: Hellenistic and Early Medieval Philosophy**  
(3 hours)  
Prerequisite: PHI 311.  
A survey of Hellenistic and early Medieval philosophy, which can include the Epicurean, Stoic, Skeptical, and Neo-Platonic schools of the Hellenistic world, as well as early Christian thinkers such as Augustine, Boethius, and Anselm. (Every three years)

**PHI 313. History of Philosophy III: Scholastic and Humanistic Philosophy**  
(3 hours)  
Prerequisite: PHI 311.  
A survey of late Medieval philosophy, which can include Islamic, Jewish, and Christian philosophers (Averroes, Maimonides, Aquinas, Ockham), and the rise of humanism, possibly including new approaches to ethics and politics (Machiavelli, Montaigne) and new approaches to nature (Bacon, Galileo). (Every three years)

**PHI 314. History of Philosophy IV: Early Modern Philosophy**  
(3 hours)  
Prerequisite: one course in philosophy.  
A survey of early modern philosophy, including figures such as Descartes, Hobbes, Spinoza, Locke, Leibniz, Berkeley, Hume, and Rousseau. (Every spring semester)

**PHI 315. History of Philosophy V: Kant and the Nineteenth Century**  
(3 hours)  
Prerequisite: PHI 314  
A survey of Kant and nineteenth century philosophy, including figures such as Hegel, Schopenhauer, Marx, Mill, and Nietzsche. (Every three years)

**PHI 316. History of Philosophy VI: Late Nineteenth and Early Twentieth Century**  
(3 hours)  
Prerequisite: PHI 314  
A survey of late nineteenth and early twentieth century philosophy, which can include the schools of existentialism, phenomenology, pragmatism, and analytic philosophy. Possible figures to be covered include Peirce, James, Husserl, Dewey, Russell, Wittgenstein, Heidegger, and Sartre. (Every three years)
PHI 325. Existentialism and Phenomenology (3 hours)
Prerequisite: One course in philosophy.
A study of the major themes of existentialism and phenomenology with some attention to their historical roots in the nineteenth century. (Every three years)

PHI 337. Philosophy and Literature (3 hours)
Prerequisite: One course in philosophy.
An examination of the relationship between philosophy and literature, including reading classic and contemporary literary texts as philosophy, and reading representative philosophical texts as literature. Commonalities and distinctions between these two modes of discourse, as well as their historical influence on one another, will be considered. (Every three years)

PHI 355. Formal Logic (3 hours)
Prerequisite: One course in philosophy or nine semester hours in mathematics or computer science.
This course is a formal study of inference. Subject matter may include the syllogism, modal logic, consequences, truth functions, and quantification theory. (Offered two years out of every three)

PHI 360. A Great Ancient or Medieval Philosopher (3 hours)
Prerequisite: PHI 311.
An intensive study of the works of an ancient or medieval philosopher of major importance in the Western tradition. The course is designed to acquaint the student with the principles of philosophical research, as well as to provide an extensive knowledge of the philosophy selected. Typical thinkers include but are not limited to: Plato, Aristotle, Augustine, Aquinas. The philosopher selected will appear in the annual schedule of courses and be recorded on the student's transcript. The course may be taken twice with the consent of the instructor, for a maximum of 6 semester hours credit. (Every two years)

PHI 361. A Great Modern Philosopher (3 hours)
Prerequisite: One course in philosophy.
An intensive study of the works of a modern philosopher of recognized stature. Typical thinkers include but are not limited to: Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, Kant, Hegel, Marx, Kierkegaard, Nietzsche, James, Dewey, Whitehead, Wittgenstein, Heidegger. The philosopher selected will appear in the annual schedule of courses and be recorded on the student's transcript. This course may be taken twice with the consent of the instructor, for a maximum of 6 semester hours credit. (Every two years)

PHI 380. Human Nature and Art: Location (3 hours)
Prerequisite: One course in philosophy or permission of instructor.
This summer course is a study of the changing notions of the human condition in the western tradition as discerned in great works of visual art and architecture studied in situ. At least one week is spent on the Macon campus, orienting students to the aims and requirements of the course; at least two weeks of study abroad, examining appropriate art objects and artifacts, follow. May be repeated once for credit if offered in a different location. (Occasional)

PHI 390. Special Topics in Philosophy (3 hours)
Prerequisite: One course in philosophy, junior or senior status, and consent of the instructor.
An intensive study of some significant topic in philosophy, not otherwise covered in departmental course offerings. May be repeated once for credit. (By special arrangement)
PHI 420. Directed Independent Research (3 hours)
**Prerequisite:** One course in philosophy, junior or senior status, and consent of the instructor.

This course is intended to provide the student with the opportunities to do guided reading in a field of interest. At least one substantial paper is required, and the student must have the project approved by the end of the third week of the semester. The course is available each semester. (By special arrangement)

**PHYSICS (PHY)**

Randall D. Peters, Chair/Professor
Matthew Marone, Associate Professor
Jose Balduz and Sheng-Chiang Lee, Assistant Professors

The department offers the B.S. and B.A. degrees and a minor in physics. The program in physics offers courses to meet the needs of: 1) students desiring to pursue physics-related industrial or governmental careers, 2) students desiring to continue their education in advanced graduate programs, 3) students desiring a physics major as preparation for science teaching in secondary schools, 4) students needing courses in physics as part of their major program, and 5) students not majoring in the sciences, but desiring a general knowledge of physics.

The Bachelor of Science degree in physics is appropriate for those wishing to immediately gain professional employment as a physicist with industry or government, or to continue their education in a physics graduate program. It consists of at least 40 credit hours of physics, which must include PHY 161/121L/162/162L, 300 (twice), 305, 306, 330, 340, 355, 450, and at least four other physics courses numbered above 300. In addition, MAT 293 Multivariable Calculus and MAT 330 Introduction to Differential Equations, and CHM 111/112 General Chemistry I/II are required. Successful completion of a senior comprehensive examination is also required. Additional coursework in mathematics is recommended but not required: MAT 340 Linear Algebra, which together with its prerequisite, either MAT 225 or MAT 260, will complete a minor in mathematics.

The Bachelor of Arts degree in physics is appropriate for those wishing to prepare for science teaching in secondary schools, or to increase the breadth of their education with a second major. It consists of at least 27 credit hours in physics, which must include PHY 115, 161/121L/162/162L, 300 (twice), 305, 306, and at least three other physics courses numbered above 300. In addition, MAT 293 Multivariable Calculus and MAT 330 Introduction to Differential Equations, and CHM 111/112 General Chemistry I/II are required. Successful completion of a senior comprehensive examination is also required.

A minor in physics consists of at least 15 credit hours in physics, which must include PHY 161/121L/162/162L, and at least three other physics courses numbered 300 or above. Note that PHY 300 may only be counted once toward the physics minor.

The courses MAT 191/192 Calculus I/II are required for all physics degrees. The courses PHY 141/142/142L may never be used to fulfill any physics degree requirement. Students wishing to pursue a major or minor in physics should confer with the department chair as soon as this decision is made in order to plan a program of studies. A physics major should ideally complete PHY 161/121L/162/162L and MAT 191/192 during the freshman year, and PHY 305/306 and MAT 293/330 during the sophomore year.

Majors may attain Departmental Honors in physics by fulfilling the following requirements: 1) attaining a grade point average of at least 3.5 in all courses taken in the department, and 2) satisfactorily completing a research project, including preparation of a paper suitable for publication in a scientific journal and/or presentation at a scientific meeting.
PHY 101. Everyday Physics  (2 hours)
Prerequisite: SCI 105 or consent of instructor.
Commonplace objects and events are studied from a scientific point of view. These may include sports, amusement rides and other vehicles, household objects, ice and steam, musical instruments, electronic devices, light, weather, toys, and weapons. A lecture and laboratory module for general education. Three hours of lecture and a three-hour lab per week for eight weeks. (Occasional)

PHY 103. Acoustical Foundations of Music  (2 hours)
(Same as MUS 103)
Prerequisite: SCI 105 or consent of instructor.
A study of the relevant concepts of physics as applied to the acoustical aspects of music reproduction, listening environments, and hearing. A lecture and laboratory module for general education. Three hours of lecture and a three-hour lab per week for eight weeks. (Every two years)

PHY 115. Descriptive Astronomy  (4 hours)
Problems in astronomy will be presented on a fundamental level and will serve to demonstrate how scientific principles are established, how these principles are sometimes revised or disproved by new data and methods, and how observations of the universe can be used by people to learn more about their place in the cosmos. A lecture and laboratory course. (Every semester)

PHY 121L. Basic Physics Laboratory I  (1 hour)
Corequisite: PHY 141 or PHY 161.
Laboratory component for PHY 141 or PHY 161; one three-hour session per week. (Every semester)

PHY 141. Introductory Physics I: Mechanics and Heat  (3 hours)
Prerequisite: MAT 133 or equivalent.
Corequisite: PHY 121L.
Algebra-based physics: the study of motion, forces, mechanical and heat energy. (Every semester)

PHY 142. Introductory Physics II: Electricity, Magnetism, and Optics  (3 hours)
Prerequisites: MAT 133 or equivalent, and PHY 141.
Corequisite: PHY 142L.
Continuation of PHY 141: the study of electrostatics, electric currents, dc and ac circuits, magnetism, geometrical and physical optics. (Every year)

PHY 142L. Introductory Physics II Lab  (1 hour)
Corequisite: PHY 142.
Laboratory component for PHY 142: one 3-hour session per week. (Every year)

PHY 161. General Physics I: Mechanics and Thermodynamics  (3 hours)
Corequisites: MAT 191 and PHY 121L.
Physics with calculus for majors in the physical sciences and engineering: the study of motion, forces, energy, heat and entropy. (Every semester)
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>PHY 162</td>
<td>General Physics II: Electricity and Magnetism, Wave Motion and Optics</td>
<td>3 hours</td>
<td>PHY 161</td>
<td>Continuation of PHY 161: the study of electrostatics, electrical currents, dc and ac circuits, and magnetism, wave phenomena, geometric and physical optics. (Every semester)</td>
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<tr>
<td>PHY 162L</td>
<td>General Physics II Lab</td>
<td>1 hour</td>
<td>PHY 162</td>
<td>Laboratory component for PHY 162: one 3-hour session per week. (Every semester)</td>
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<tr>
<td>PHY 300</td>
<td>Physics Seminar</td>
<td>1 hour</td>
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<td>This is a weekly, one-hour seminar focusing on current topics at the frontiers of physics. Each student must make at least one presentation each semester. May be taken up to four times for credit, but only two credit hours may be applied toward the physics major and one credit hour toward the physics minor. (Every semester)</td>
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<tr>
<td>PHY 305</td>
<td>Modern Physics I</td>
<td>3 hours</td>
<td>MAT 192 and PHY 162</td>
<td>Introduction to the quantum theory of matter: wave-particle duality, uncertainty, quantum probability, the Schroedinger equation, atomic and molecular structure, classical and quantum statistics, solid state physics, lasers, and superconductors. (Every year)</td>
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<tr>
<td>PHY 306</td>
<td>Modern Physics II</td>
<td>3 hours</td>
<td>PHY 305</td>
<td>Introduction to the physics of spacetime, the very small, and the very large: special relativity, nuclear and particle physics, astrophysics, general relativity, and cosmology. (Every year)</td>
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<tr>
<td>PHY 325</td>
<td>Physical Optics</td>
<td>3 hours</td>
<td>MAT 192 and PHY 162</td>
<td>Intermediate level optics, including the electromagnetic nature of light, thermal and coherent sources, interference phenomena, holography, polarization, Fourier transform spectroscopy, and nonlinear optics. The adjective physical in the title of this course emphasizes its foundation in electromagnetic theory, as opposed to geometrical optics, where the primary goal is to understand how optical instruments function, using ray tracing techniques. Two hours of lecture and a 3-hour laboratory per week. (Every three years)</td>
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<tr>
<td>PHY 330</td>
<td>Thermal Physics</td>
<td>3 hours</td>
<td>PHY 162, MAT 293, and MAT 330</td>
<td>Introduction to statistical mechanics covering classical and quantum statistics, and connections with thermodynamics. Quantum statistics will include investigations of thermal properties of solids and low temperature phenomena. (Every two years)</td>
</tr>
<tr>
<td>PHY 335</td>
<td>Solid State Devices</td>
<td>3 hours</td>
<td>MAT 192 and PHY 162</td>
<td>Exploration of the physics of solid state devices, including transistors and LEDs, basic properties of conduction in solids, simple quantum mechanics, crystal structures, solid state chemistry and electronic circuits. Two hours of lecture and a 3-hour laboratory per week. (Every two years)</td>
</tr>
<tr>
<td>PHY 340</td>
<td>Analytical Mechanics</td>
<td>3 hours</td>
<td>MAT 293, MAT 330, and PHY 162</td>
<td>Statics and dynamics of particles and rigid bodies; Newtonian, Lagrangian, and Hamiltonian description of systems; vibrating systems including normal modes. (Every two years)</td>
</tr>
</tbody>
</table>
PHY 355. Electromagnetic Theory (3 hours)  
Prerequisites: MAT 293, MAT 330, and PHY 162.  
Electrostatics, magnetostatics, electrodynamics, Maxwell's equations, electromagnetic waves. (Every two years)

PHY 365. Mathematical Physics (3 hours)  
Prerequisites: MAT 293, MAT 330, and PHY 162.  
Mathematical methods useful in upper-division physics courses are explored. Topics may include probability distributions, linear algebra, complex variables, waves and Fourier analysis, orthogonal functions, partial differential equations, chaotic dynamics, and group theory. (Every three years)

PHY 370. Experimental Physics (3 hours)  
Prerequisite: MAT 192 and PHY 162.  
Introduction to experimental techniques including computerized data acquisition, data analysis, analog and digital electronics and instrumentation. Students will also learn the LabVIEW programming language. Two hours of lecture and a 3-hour laboratory work per week. (Every two years)

PHY 385. Computational Physics (3 hours)  
Prerequisites: MAT 192 and PHY 162.  
Introduction to the use of computing to solve physics problems and to methods of efficient communication of these solutions. Topics include: LaTeX, computer algebra systems, computer programming and introduction to numerical methods. Two hours of lecture and a 3-hour computer laboratory per week. (Every three years)

PHY 420. Selected Topics in Physics (Subtitle) (1-4 hours)  
Prerequisite: to be determined by the instructor.  
A study of a topic in much greater depth than is done in the more general courses, or a topic of current importance not covered in the course offerings of the department. Credit hours depend on the topic, with a maximum of 4. (Occasional)

PHY 430. Nonlinear Physics (3 hours)  
Prerequisite: PHY 340.  
This course discusses nonlinear phenomena in physical systems and how these nonlinear effects are analyzed. Two hours of lecture and a three-hour lab per week. (Every three years)

PHY 450. Quantum Mechanics (3 hours)  
Prerequisites: MAT 293, MAT 330, and PHY 305.  
Introduction to the concepts and techniques of quantum mechanics. Mathematical formalisms, applications to discrete and continuous physical systems, and philosophical implications of quantum mechanics will be investigated. (Every two years)

PHY 460. Research in Physics (1-3 hours)  
Prerequisite: to be determined by the student's research advisor.  
Training in the techniques of basic research in physics with application to a research project of current importance. May be spread over several semesters. One credit hour for each three hours per week of research activity. May be taken for up to 6 credit hours. (Occasional)
The Department of Political Science offers a wide range of courses in American government and politics, comparative government and politics, international politics, and political theory. The curriculum of the Political Science Department is designed to provide (1) an academic training in the theoretical, empirical, and philosophical aspects of the discipline; (2) an environment in which students can develop basic skills in analysis, critical thinking, writing and research; (3) the background and competence necessary to pursue graduate studies; and (4) a broad liberal education in politics, law, and government for all students.

A political science major consists of a total of 33 semester hours, including POL 101, POL 200, POL 253, POL 295, and POL 495. The six remaining courses are to be selected from among courses numbered up to 380, and distributed across the three fields of American government, international and comparative studies, and law and political theory, as follows: four courses in one field and one course selected from each of the remaining two fields. At least eighteen hours (six courses) must come from courses numbered between 300 and 380.

Majors are strongly advised to schedule the required courses at the earliest possible time, and before taking any 300 level courses in the different fields. Students in political science are also encouraged to consider taking a number of related and complementary courses offered in other programs such as ECN 150, ECN 151, CSC 125, foreign languages, and any of the research methodology or statistics courses offered by the departments of sociology or psychology. Internships are encouraged, so that students can experience the practical, as well as the more theoretical, aspects of the field. In addition, majors should look into the study-abroad programs arranged through the college with reputable academic institutions worldwide.

A minor in political science requires a total of 18 hours, including POL 101, POL 200, POL/IAF 253, and three courses between 300 and 380, one from each of the fields of American government, international and comparative studies, and law and political theory.

Majors may attain departmental honors in political science by meeting the following requirements: (1) achieve an over-all grade point average of 3.5, and (2) achieve a grade point average of 3.75 in the political science major.

Students with a strong interest in global affairs, and those wishing to take a more interdisciplinary approach to the study of government, should consider the concentration in International Affairs (IAF) described below. Unlike some of the political science courses required for the major and minor, all courses in the international affairs program have an international focus and explore the intersections between domestic and international trends. In addition to political science courses, international affairs students can select courses from the Departments of Economics (ECN), History (HIS) and Foreign Languages and Literatures (FRE, GER, or SPN).

**COMPOSITION OF FIELDS IN THE MAJOR**

**FIELD I. STUDIES IN AMERICAN POLITICS**

POL 330. Race and Politics

POL 333. Southern Politics

POL 335. Congress and the Legislative Process
POL 336. Campaigns and Elections
POL 337. U.S. Legal System
POL 339. The Presidency
POL 351. American Foreign Policy
POL 352. U.S. National Security Policy
POL 380. Seminar on Political Topics

FIELD II, STUDIES IN ETHICS, LAW, AND POLITICAL THEORY

POL 332. Women, Law and Politics
POL 345. Environmental Justice
POL 348. Constitutional Law: Federalism and Separation of Power
POL 349. Constitutional Law: Civil Rights and Liberties
POL 373. American Political Thought
POL 377. Classical Political Thought
POL 378. Modern Political Thought
POL 379. Contemporary Political Thought
POL 380. Seminar on Political Topics

FIELD III, INTERNATIONAL AND COMPARATIVE STUDIES

POL 310. Western European Political Systems
POL 312. Politics of Developing Nations
POL 313. Middle East Politics
POL 314. Women in Developing Countries
POL 354. Principles of International Law
POL 355. International Conflict and Security
POL 356. International Political Economy
POL 380. Seminar on Political Topics

Secondary Teacher Certification Program in Political Science

Teacher certification in political science (6-12) is available to political science majors. Students planning to teach government and civics in secondary school should notify their advisor and contact the secondary education advisor in Tift College of Education. Required courses in education include EDUC 210, 220, 256, 283, 357, 398, 399, 406, 430, 469, 476, 485, and 492. Please consult the TIFT COLLEGE OF EDUCATION section of this catalog for more details. Georgia Professional Standards Commission approval of this new certification option is pending.

POL 101. Introduction to American Government (3 hours)
A study of the structure, organization, power, and procedure of the government of the United States. (Every semester)

POL 200. Introduction to Political Theory (3 hours)
This course is designed for political science majors and non-majors alike. It introduces students to major thinkers and themes that have shaped our thinking about politics. While the
course may include authors from any period in the history of political thought, the guiding purpose is the illumination of contemporary theoretical divisions. (Every semester)

POL 253. Introduction to International Relations (3 hours)  
(Same as IAF 253)  
This course is designed for political science majors and non-majors alike. The course surveys the diplomatic, military, economic, legal, and organizational theories and variables that shape our understanding of relations between countries. Special emphasis is placed on contemporary world problems such as the environment, human rights, conflict, population, and poverty. (Every semester)

POL 295. Introduction to Political Science Research (3 hours)  
Prerequisite: POL 101 or 200 or 253, or consent of the instructor.  
The purpose of this course is to train students in how to analyze political phenomena in a rigorous and scientific manner. This knowledge requires an understanding of two different components: research design and statistics. In the first component, students will learn how to discriminate between theories, pose proper research questions, construct a relevant hypothesis, make valid causal inferences, operationalize concepts, and test their hypotheses. The latter component offers the student a ‘statistical toolbox’ to use as s/he pursues the scientific study of all things political. (Every semester)

POL 310. Western European Political Systems (3 hours)  
An analysis of Western European political systems in terms of their institutions, political processes, and behavior. Emphasis on comparative analysis with examples drawn from the full range of European parliamentary democracies. (Every two years)

POL 312. Politics of Developing Nations (3 hours)  
This course treats the major problems of development in Latin America, Africa, and the Middle East. Special emphasis is placed on the interaction of domestic political, social, and economic variables in determining the pace and character of the development process. (Every two years)

POL 313. Middle East Politics (3 hours)  
This course is designed to introduce the student to the history and political trends of the region. The forces of change such as nationalism, Islamic revivalism, the Arab-Israeli peace process, and regional conflicts are given special attention. (Every two years)

POL 314. Women in Developing Countries (3 hours)  
(Same as WGS 314)  
Prerequisite: POL 253/IAF 253.  
This course offers an opportunity to learn about the status of women in developing countries, in general, and the role of women in development, in particular. The course examines the substance and direction of interactions among women, their political structures, and economic systems throughout the developing world. Multiple perspectives and models are explored, including, but not limited to, dependency theory, modernization theory, globalization, feminist sociology, and post modernism. (Every two years)

POL 330. Race and Politics (3 hours)  
(Same as AFR 330)  
This course explores the unique political experiences of racial minorities with particular emphasis on both traditional (e.g., voting, office holding, and lobbying) and non-traditional (e.g., riots/protests, music, mass movements) efforts to gain political stamina. The course will focus on the quality of minority political leadership, ideology, participation, representation, and strategies for empowerment. (Every two years)
POL 332. Women, Law and Politics (3 hours)
(Same as WGS 332)
Prerequisite: POL 101 or consent of instructor
This course examines the legal and political efforts of women to obtain equality in American society. The course focuses on 1) the landmark legal cases and the important political milestones on the path towards full gender equality; 2) the challenges facing women seeking leadership roles in politics and society; 3) the actual and potential impacts women have on political institutions and policy outcomes; and 4) current public policy areas that have a significant impact on the lives of women and girls. (Every two years)

POL 333. Southern Politics (3 hours)
Prerequisite: POL 101 or consent of instructor
A survey of the politics of the southern states with emphasis placed on recent political trends, prominent personalities, and unique cultural attributes. Attention is given to the implications of federal policy on the southern states in the areas of civil and voting rights as well as on state and local government structures with Georgia serving as a primary case study. (Every two years)

POL 335. Congress and the Legislative Process (3 hours)
Prerequisite: POL 101 or consent of instructor.
An examination of the United States Congress, with emphasis on recruitment and composition, styles of representation leadership, the role of interest groups, and the executive in the legislative process, organization and functions. (Every two years)

POL 336. Campaigns and Elections (3 hours)
Prerequisite: POL 101 or consent of instructor.
A study of American electoral politics, with primary emphasis on the development, organization, and contemporary role of political parties in the United States. (Every two years)

POL 337. U.S. Legal System (3 hours)
Prerequisite: POL 101 or consent of instructor
A legal system is an integral part of a nation's political system. It provides mechanisms for resolving individual and group conflicts, for implementing and reformulating public policies, for regulating the struggle for economic power and for holding political and economic processes to certain standards of fairness. (Every two years)

POL 339. The American Presidency (3 hours)
Prerequisite: POL 101 or consent of instructor.
The historical development and constitutional base of the U.S. Presidency, its contemporary roles and responsibilities, and its relationships with other political institutions. (Every two years)

POL 345. Environmental Justice (3 hours)
(Same as AFR/EES/SOC 345)
This course examines the impact of institutional racism on environmental and health policies, industrial practices, government regulations and rule making, enforcement, and overall quality of life in people-of-color communities. The course will examine the nexus between environmental protection and civil rights, and the impact of the environmental justice national environmental groups. (Every two years)

POL 348. Constitutional Law: Federalism and Separation of Power (3 hours)
Prerequisite: POL 101 or consent of instructor.
An examination of the historical development of American constitutional law and of national governmental powers. (Every year)
POL 349. Constitutional Law: Civil Rights and Liberties (3 hours)
Prerequisite: POL 101 or consent of instructor.
An examination of the individual's constitutional rights. (Every year)

POL 351. American Foreign Policy (3 hours)
Prerequisite: POL 101 or consent of instructor.
The institutions and procedures involved in the formulation and implementation of American foreign policy, with some consideration of the important elements and strategies of American foreign policy from World War II to the present. (Every two years)

POL 352. U.S. National Security Policy (3 hours)
Prerequisite: POL 101 or consent of the instructor.
This course is an introduction to U.S. national security structures and issues, examining U.S. security policy in light of U.S. national interests; nuclear strategy; the connections between arms control and military planning; structures and functions of U.S. national security decision-making bodies; and national security problems and attempts at their solution. (Every two years)

POL 354. Principles of International Law (3 hours)
Prerequisite: POL 253 or consent of instructor.
This course considers the nature, sources, and evolution of public international law; its relation to domestic law; subjects and jurisdiction of international law; peaceful settlement of disputes; international agreements; state responsibility in treatment of aliens; the use of force; and the role of international organizations and courts. (Every two years)

POL 355. International Conflict and Security (3 hours)
Prerequisite: POL 253 or consent of instructor.
This course examines interactions between less-developed countries and the international system by reference to the notion of national security. Topics discussed include: colonial legacy, the international financial and trade systems, global economic inequalities, food and health security, conflict and its resolution, and nuclear proliferation. (Every two years)

POL 356. International Political Economy (3 hours)
Prerequisite: POL 253 or consent of instructor.
An examination of the political determinants and consequences of economic relations between the nations of the world. Topics explored include international trade, international finance, international financial organizations, regional economic organizations, and economic treaties and conventions. (Every two years)

POL 373. American Political Thought (3 hours)
Prerequisite: POL 200 or consent of instructor.
A survey of the major thinkers who have influenced the development of political ideas in America. Thinkers examined may include Jefferson, Hamilton, Madison, Tocqueville, Frederick Douglass, Lincoln, Wilson, Croly, Dubois, Dewey and King. In addition to the writings of such statesman and political theorists, novels might be consulted for their depictions of American political culture. (Every two years)

POL 377. Classical Political Thought (3 hours)
Prerequisite: POL 200 or consent of instructor
A survey of the political thought of the ancient and medieval worlds. Here we examine important early attempts to identify the way of life most consistent with human nature and with the nature of the world. Although the course will focus on the writings of Plato and Aristotle, other thinkers may be examined, including Thucydides, Aristophanes, Xenophon, Cicero, St. Augustine, Alfarabi, and Aquinas. (Every two years)
POL 378. Modern Political Thought (3 hours)
Prerequisite: POL 200 or consent of instructor
A survey of the political thought of the modern world: from Machiavelli to the nineteenth century. Important themes include the break with antiquity, the defense of democratic forms and the modern state, the relationship between freedom and equality, and the character of modern citizenship. Thinkers examined may include Machiavelli, Hobbes, Locke, Montesquieu, Rousseau, Hume, Kant, Burke, Hegel and Mill. (Every two years)

POL 379. Contemporary Political Thought (3 hours)
Prerequisite: POL 200 or consent of instructor
An examination of the ideas that shaped twentieth-century political theory and practice. This course will cover the competing visions of modern liberalism as well as the major theoretical challenges offered from the Left and Right. Thinkers examined may include Marx, Nietzsche, Hannah Arendt, John Rawls, Robert Nozick, and Michael Sandel. (Every two years)

POL 380. Seminar on Political Topics (3 hours)
Prerequisite: consent of instructor.
A seminar involving intensive study of a major political or legal topic. May be repeated with different topics. (Occasional)

POL 490. Internship Program (3-15 hours)
Prerequisite: consent of departmental chair.
An internship program offering to majors a practical field work experience in one of the following phases of government: local, state, national, or international. The instructor in the governmental field selected must approve and supervise the student's project. The student is responsible for all arrangements. Graded on S/U basis only. (Occasional)

POL 493. Supervised Independent Reading (1-3 hours)
Prerequisite: consent of departmental chair.
An intensive reading program concerning a major issue in political science under the supervision of the instructor selected. Graded on S/U basis only. (Occasional)

POL 495. Senior Seminar in Political Science (1-3 hours)
Prerequisite: senior status.
The capstone experience in the political science discipline, providing an overview of its current intellectual state. The seminar will focus on the tensions between theory and practice, the science and art of politics. The contributions of natural and social science theories, methods, and results are highlighted for their relevance to the study of political science. (Every year)

POL 496. Directed Independent Research (1-3 hours)
Prerequisite: consent of departmental chair.
An intensive research project concerning a major issue in Political Science under the direction of the instructor selected. (Occasional)

INTERNATIONAL AFFAIRS (IAF)
The interdisciplinary concentration in International Affairs (IAF) is designed to provide students with the basic tools and information required to develop an appreciation for an increasingly interdependent and complex global environment. All courses in this program have an international focus with emphasis on the interplay between domestic and international conditions. This concentration enables students: to gain an understanding about, and appreciation for, other cultures and global issues, actors and trends; to prepare for interna-
tional careers or graduate specialized training in international studies; and to enrich their Mercer experience and curriculum by emphasizing international issues.

The International Affairs concentration consists of two core courses, IAF/POL 253 and IAF 400, plus 36 hours selected from designated courses from four departments: Economics (ECN), Foreign Languages and Literatures (FLL), History (HIS) and Political Science (POL). The following stipulations apply:

1. Primary Track: At least 18 hours must be completed from one department, chosen from Foreign Languages and Literatures, History or Political Science.

2. Two Secondary Tracks: At least 9 hours must be completed in each of two other departments, chosen from Economics, Foreign Languages and Literatures, History, and Political Science. Students whose primary track is not in a foreign language must elect Foreign Languages and Literatures as one of the two secondary tracks in the concentration.

3. Foreign Language: Students must take all their foreign language courses in a single language. Should a student elect to complete the primary track in Foreign Languages and Literatures, the following stipulations apply: For French (FRE) or Spanish (SPN), students must take two intermediate level courses, two composition/conversation courses, and two literature courses selected from the list below. For German (GER), students must take two intermediate-level courses, GER 311, and three more 300-level GER courses from the courses listed below. Any international affairs student wishing to study a foreign language not currently offered at Mercer should consult the director of the program for available options.

4. Study Abroad: Students must complete a semester-long study abroad arranged through the Office of International Programs.

5. Community Outreach: Students must complete a community/campus project or initiative designed to promote global awareness and understanding.

Eligible courses for the International Affairs concentration include:

- ECN 150, 151, 441, 448, 452
- FRE 251, 252, 301, 302, 303, 304, 315, 320
- GER 251, 252, 311, 321, 351, 352, 353
- HIS 317, 318, 322, 324, 327, 328, 330, 332
- POL 310, 312, 313, 314, 351, 352, 354, 355, 356, 380
- SPN 251, 252, 301, 302, 303, 304, 310, 315, 320

This concentration is under the direction of the Political Science Department.

**IAF 253. Introduction to International Relations** (3 hours)

*(Same as POL 253)*

The course surveys the diplomatic, military, economic, legal, and organizational theories and variables that shape our understanding of relations between countries. Special emphasis is placed on contemporary world problems such as the environment, human rights, conflict, population, and poverty. (Every semester)

**IAF 400. Senior Project in International Affairs** (3 hours)

Prerequisites: POL/IAF 253 and senior status, or consent of director.

Supervised independent study, with an emphasis on the correlation of different approaches to international affairs. (Every year)
The Program in Leadership and Community Service (PLS) is a trans-disciplinary concentration that enhances traditional liberal learning through supervised and extensive periods of public and community service. Students serve here and abroad with community organizations on projects designed to enhance the common good, or with individuals and families to help them solve particular problems. In so doing, each participant becomes a part of a service-learning community designed to strengthen inclusive human communities, meet individual needs, promote intercultural literacy, and enhance the development of students as leaders, citizens and neighbors. The program recognizes that an understanding of oneself and one's world is enhanced when active involvement in community issues is combined with critical reflection, and that service is both a responsibility and an opportunity for leadership development.

The goals of PLS are: (1) to deepen the students' understanding of and commitment to personal, cultural and ultimate values, (2) to help students develop the skills and values necessary for effective servant leadership roles, (3) to promote the common good both here and abroad, (4) to help meet unmet human needs in diverse communities, and (5) to bridge the gap between traditional academic disciplines, the liberal arts, and public and community service.

Students must complete a twelve-course program in order to earn a degree with a PLS concentration. Students must complete the following courses: PLS 200, 210, 400, and 401; two courses from CHR 330, CHR 335, PHI 195, PHI 205, and PLS 322; and one elementary measurement course taken from the Department of Sociology (SOC 304), Department of Mathematics (MAT 126) or Department of Psychology (PSY 302). Students should be aware that departments or divisions outside of PLS may require prerequisites to certain courses.

Specifically, students must also complete a four-course track. The track allows students to select four courses that will deepen their understanding of particular service issues (e.g. non-profit accounting, leadership, social policy and planning, education, social work, environmental education, moral leadership, multicultural education, etc.). Students must meet with the Chair to determine which four courses will be included in the outside track. Prerequisite courses associated with CHR 335, PHI 195, or PSY 302 can be included in the PLS track.

PLS 200. Introduction to Public and Community Service: Education for the Common Good (3 hours)
The course introduces students to the concepts of leadership, and community service and to the notion that education should serve the common good. Literature from philosophy, religion, the humanities and the social sciences is used to explore global problems and their possible solutions. Students are asked to explore questions like, “What obligation does one have to one’s fellow human being?” and “What should be the goals of one’s education?” Service-learning practicum required. (Every year)
PLS 210. Social Problems: The Literature of Social Criticism and Change (3 hours)
(Same as SOC 210)
An examination of the principle causes, consequences, and solutions of major societal problems. The emphasis on specific social problems may vary, but attention will be given to such contemporary issues as social class inequities, discrimination, poverty, violence, deviance, social justice, population trends, technology and change. A service learning practicum may be required. (Every year)

PLS 322. Justice, Equality, and the Challenge of Disability (3 hours)
(Same as SOC 322)
The course examines the social construction of disability within various cultural settings and historical periods. How do societies construct meanings about disability, cosmology, and personhood? The course examines how the social contexts of disability overlap with economy, history, and tradition. Students will develop a knowledge base, and critical and reflective conceptions of ethics and justice in the world with emphasis on the community of persons with disabilities. Service-learning practicum required. (Every two years)

PLS 385. Special Topics in Leadership and Community Service (3 hours)
Prerequisite: Consent of instructor.
An independent study of some significant topic in leadership and/or community service that is not available through normal course offerings. Service-learning practicum may be required. (Occasional)

PLS 390. Program Analysis of Service Systems (3 hours)
Using qualitative methods of analysis in a service-learning format, students will evaluate actual social service agencies or systems in light of human service universals. Agency and system efficiency, cost effectiveness, model coherence, age appropriate programming, program logic models and typical program characteristics will be examined from the consumer perspective. Service-learning practicum required. (Every year)

PLS 400-401. Senior Practicum and Seminar in Service Learning (4 hours)
Prerequisites: Senior status and consent of instructor.
An intensive practicum experience in a public or individual service situation is required. Senior level students are required to engage in projects or assignments requiring at least 10 hours of service per week. Courses are to be taken in sequence. Students will be required three training events per semester and weekly seminars relevant to communication, grant writing, conflict management, team building and leadership, program planning and public and consumer safety, diversity awareness, service management and PATH analysis. Service-learning practicum required. (Every year)

PSYCHOLOGY (PSY)
Keegan D. Greenier, Chair/Associate Professor
Miranda Pratt, James E. Radiker and John C. Wright, Professors
Ami L. Spears, and Tanya Sharon, Associate Professors
William J. Jenkins, Assistant Professor

The curriculum in the Psychology Department is designed to: (1) give the student a background in the philosophical, theoretical and empirical aspects of the field; (2) develop the student's basic skills in critical thinking, reading, writing, speaking, computer use, and
research; (3) emphasize the role of liberal education in enhancing personal and professional development; and (4) assure that students have the background experiences necessary to pursue graduate education.

The B.A. major in psychology consists of at least eight courses (28 hours), with additional courses required for the B.S. degree (34 hours). All majors must take the following core courses: PSY 101, 302, and 303. All majors must complete one course from each of the following two groups: Group 1: PSY 210, 215, 221, 225; Group 2: PSY 230, 240, 245, 260, 270. At least one of these courses must be completed prior to enrolling in PSY 302, and the second completed prior to enrolling in any courses beyond PSY 303. Upon completing PSY 303, all majors must complete one of the following laboratory electives: PSY 305, 310, 325, 326, 385.

For a B.A. in Psychology, majors must complete an additional research requirement of either (a) an empirical project (PSY 490a and PSY 490b or PSY 496a and 496b) or (b) an additional laboratory elective from among PSY 305, 310, 325, 326, 385. B.A. majors must also complete one of the following seminar courses: PSY 401, 410, 420, 430, 485.

For a B.S. in Psychology, majors must complete: (a) an empirical project (PSY 490a and PSY 490b or PSY 496a and PSY 496b); (b) PSY 401; (c) at least 6 additional hours in Psychology of which at least 3 must be 300-level or above (and no more than 3 credit hours in PSY 390 or PSY 495); (d) MAT 133, MAT 141, or MAT 191; (e) CHM 111 and 112 (or only CHM 115), and BIO 211. The following laboratory sequences are highly recommended: CSC 204 and 205; PHY 141/121L and 142/142L; or PHY 161/121L and 162/162L.

A minor in psychology consists of five courses: PSY 101; one course each from Group 1 and Group 2 above, PSY 302, and one other PSY course numbered 300 or higher. Various special topics courses may be substituted only with prior permission of the department chair.

Majors may attain Departmental Honors in psychology by fulfilling the following requirements: (1) maintain a minimum grade point average of 3.50 in all psychology courses and a 3.0 overall grade point average; (2) file an application for attempting honors with the chair, and in order to be eligible to apply (a) have achieved a grade point average of 3.50 in all psychology courses attempted and an overall grade point average of 3.0; and (b) have completed at least three courses in psychology, which must include PSY 302; (3) complete PSY 496a and 496b, Honors Project in Psychology, in place of PSY 490a and 490b. PSY 101 is a prerequisite for all further work in the department.

**PSY 101. Introduction to Psychology** (3 hours)
An introduction to and survey of the major content areas of psychology. The topics include biological, cognitive, social, and environmental influences on behavior, as well as the variety of philosophical, theoretical, and empirical approaches adopted by the discipline. (Every semester)

**PSY 210. Biopsychology** (3 hours)
Prerequisite: PSY 101.
An investigation of the ways the nervous system interfaces with behavior to determine what we perceive, feel, think, say, and do. The course will provide an overview of the major divisions of biopsychology - neuropsychology, psychopharmacology, psychophysiology, and physiological psychology - with an emphasis on their relationship to behavior. (Every year)

**PSY 215. Cognitive Psychology** (3 hours)
Prerequisite: PSY 101.
An introduction to the major theoretical approaches and empirical research related to human thought processes. Topics include perception, attention, memory, thinking, problem solving, and decision making. (Every year)
PSY 221. Health Psychology (3 hours)  
Prerequisite: PSY 101.  
This course will explore theoretical and empirical approaches to studying the influence of thought, feeling, and behavior on physical health. The class will examine the mind-body problem and how physical health is influenced by personality, social relationships, stress, expectations, behavior, and emotion expression. (Every year)

PSY 225. Sensation & Perception (3 hours)  
Prerequisite: PSY 101.  
This course will provide the student with an understanding of how humans sense and perceive the surrounding environment. Topics will include the visual, auditory, vestibular, olfactory, and somatosensory systems. (Every two years)

PSY 230. Social Psychology (3 hours)  
Prerequisite: PSY 101.  
An examination of behavior influenced by other people. The topics include interpersonal relationships, attitude development and change, group interaction, and the impact of culture and physical environments. (Every year)

PSY 235. Industrial Psychology (3 hours)  
Prerequisite: PSY 101.  
An overview of the applications of psychological theory and research to the workplace. The topics covered include personnel selection and management, interpersonal aspects of employment, and factors that influence performance. (Every year)

PSY 240. Theories of Personality (3 hours)  
Prerequisite: PSY 101.  
A critical review of the major theoretical explanations of the development, structure and organization of personal attributes. The course also considers the empirical evidence which supports these theories. (Every year)

PSY 245. Developmental Psychology (3 hours)  
Prerequisite: PSY 101.  
An introduction to the study of the psychological development of the individual. The focus of this course is both theoretical and empirical, including coverage of growth in physical, social, cognitive, emotional, behavioral, and personality traits across the life span. (Every year)

PSY 260. Introduction to Clinical Psychology (3 hours)  
Prerequisite: PSY 101.  
An overview of the concepts, methods, and issues involved in clinical psychology, including assessment procedures and intervention strategies from varying theoretical perspectives. (Every year)

PSY 270. Psychology of Gender (3 hours)  
(Also as WGS 270)  
Prerequisite: PSY 101 or consent of instructor.  
Examination of the theory and context in which the social construct of “gender” develops, and the impact this has on our perceptions of ourselves, how others perceive us, and how we relate to others. Emphasis will be placed on the diversity of such experiences. (Every two years)

PSY 285. Special Topics (3 hours)  
Prerequisite: PSY 101.  
A survey of a content area in psychology that is not available through other departmental course offerings. May be taken more than once, for a maximum of six credit hours. (Occasional)
PSY 302. Behavioral Statistics (4 hours)
Prerequisites: one Group 1 PSY course or one Group 2 PSY course, and completion of the general education mathematics requirement.
This course will provide the student with an understanding of basic behavioral statistics and the ability to report them in written and oral formats. Topics will include descriptive statistics, basic research design, and inferential statistics. Assignments include laboratory investigations and written reports. (Every semester)

PSY 303. Research Methods (4 hours)
Prerequisite: PSY 302.
An introduction to the methodological skills necessary for conducting psychological research. Topics include strategies and problems of basic and advanced research design, drawing conclusions, writing research reports, and ethical issues. Assignments include laboratory investigations and written reports. (Every semester)

PSY 305. Psychology of Learning (4 hours)
Prerequisite: PSY 303.
An examination of the acquisition, maintenance and stimulus control of behavior from both empirical and theoretical perspectives. Laboratory investigations and written reports of these investigations are required. (Every two years)

PSY 310. Biological Bases of Behavior (4 hours)
Prerequisite: PSY 303.
An investigation of the relationship between biological and psychological processes. The biological bases of human and animal behavior will be explored and analyzed from the perspectives of psychophysiology, ethology, and behavior genetics. Laboratory investigations and written reports of experimental findings are required. (Every two years)

PSY 325. Tests and Measurement (4 hours)
Prerequisite: PSY 303.
Examination of the construction, evaluation, and use of psychological assessment devices. The topics include reliability, validity, measurement theory, and factors that influence the assessment process. Laboratory investigations and written reports of empirical findings are required. (Every year)

PSY 326. Behavior Modification (4 hours)
Prerequisite: PSY 303.
An examination of the applications of learning principles in solving human problems. Consideration will be given to legal, social, and ethical issues related to these applications. Experiential or practical exercises applying principles learned and written reports of these findings are required. (Every year)

PSY 385. Special Topics (4 hours)
Prerequisite: PSY 303.
An empirical study of some significant topic in psychology that is not available through other departmental laboratory course offerings. Laboratory investigations and written reports of empirical findings are required. May be taken more than once, for a maximum of eight credit hours. (Every year)

PSY 390. Field Placement (1-15 hours)
Prerequisites: permission of the chair and senior status.
An opportunity to obtain experience with the activities typically performed by a practicing psychologist. Students are expected to work for the agency involved no fewer than 3 hours per week for each credit hour awarded. Specific academic assignments will also be negoti-
ated with the faculty member involved and the agency supervisor. Graded S/U. (Every semester)

**PSY 401. History and Systems of Psychology** (3 hours)
Prerequisites: senior status, PSY 303.
An attempt to place in historical perspective the major concepts, philosophical assumptions, and theories of psychology. The course draws together content from across the curriculum and includes a critical examination of the field. (Every year)

**PSY 410. Social and Ethical Implications of Psychology** (3 hours)
Prerequisite: PSY 303; senior status.
A study of the impact of psychological research and practice on the individual and society. The ethical, moral, and legal implications of psychology will be examined. (Every two years)

**PSY 412. Animal Behavior** (3 hours)
Prerequisite: PSY 303.
The course seeks to describe and explain the causative and developmental factors that influence animal behavior at the level of the individual and social group. Investigations into the mechanisms underlying behavior will be stressed, primarily in non-human mammals. (Every two years)

**PSY 420. Alternative Perspectives in Psychology** (3 hours)
Prerequisite: PSY 303; senior status.
A critical examination of humanistic, phenomenological, existential, and value-based perspectives in psychology. (Every two years)

**PSY 430. Group Dynamics** (3 hours)
Prerequisite: PSY 303
A subspecialization of social psychology, this seminar focuses on human thought and behavior specifically in group situations. Topics may include group formation, structure, and development; cohesiveness; influence; power; group task performance; group decision-making; leadership; crowd behavior; and intra- and intergroup conflict. (Every two years)

**PSY 460. Psychopathology** (3 hours)
Prerequisite: PSY 240 or 260.
A survey of the major categories of behavior pathology, including a consideration of etiology, diagnosis, and treatment. (Every year)

**PSY 485. Special Topics in Psychology** (3 hours)
Prerequisites: PSY 303 and consent of instructor.
An advanced study of psychological theories that is not available through other departmental course offerings. May be taken more than once, for a maximum of six hours credit toward the psychology major. (Occasional)

**PSY 490a. Empirical Project in Psychology I** (2 hours)
Prerequisites: PSY 303 and consent of chair.
The development and completion of an acceptable proposal for an empirical project on a psychological topic. The student will produce a formal manuscript and orally present the proposed empirical project. (Every semester)

**PSY 490b. Empirical Project in Psychology II** (2 hours)
Prerequisite: PSY 490a.
The implementation and completion of the project proposed in PSY 490a. The student will produce a formal manuscript and orally present the results of this empirical project. (Every semester)
PSY 495. Directed Independent Research (1-4 hours)
Prerequisites: PSY 303 and consent of supervisor and chair.
Requirements include selection of a problem area, survey of relevant literature, research and report of these findings. Graded S/U. (Every semester)

PSY 496a. Honors Project in Psychology I (2 hours)
Prerequisites: candidate for departmental honors in psychology, PSY 303.
The student must make formal application to the departmental chair and, if approved, register for this course instead of 490a. The student then develops and completes an acceptable honors project prospectus for an empirical project on a psychological topic that meets the approval of a committee of three faculty members from the department. The student will produce a formal manuscript and orally present a proposed empirical project. (Every semester)

PSY 496b. Honors Project in Psychology II (2 hours)
Prerequisite: PSY 496a.
The implementation and completion of the project proposed in PSY 496a. The student will produce a formal manuscript and orally present the results of this proposed empirical project. (Every semester)

SCIENTIFIC INQUIRY (SCI)
Tanya Sharon, Director/Assistant Professor of Psychology

The Scientific Inquiry program provides the general introduction to science for the beginning university student with contributions drawn from the natural, behavioral and social sciences. SCI 105 is a requirement in the College of Liberal Arts General Education Program. This course is designed to help students gain skills in the practice of the methodology of science and improve their critical thinking skills. Scientific Inquiry explores the role of science as a creative human endeavor permeating our society through a case study approach. Among other things, students will evaluate science and scientific methods as bases for both public and private decision-making, and examine the limits of science as a tool for understanding the world.

SCI 105. Scientific Inquiry (3 hours)
An introduction to the human activity of science in its broadest terms, including examples drawn from the natural, behavioral and social sciences. The course includes the investigation of the logical, empirical, and mathematical modes of thought that contribute to its endeavors; the type of knowledge obtainable with its application; the social, ethical, and political contexts of its practice; and the kinds of discourse used in its communication. (Every semester)

SCI 112. Great Papers in Science: (discipline) (2 hours)
Prerequisite: SCI 105.
This eight-week science laboratory module will focus on classic papers and experiments in a sub-discipline in the natural or physical sciences. Students will read and discuss classic papers in a seminar format in which the human activity of scientific inquiry is emphasized, rather than the specific results of that inquiry. Students will explore how theory and experimentation combine to generate scientific knowledge and how scientists persuade their colleagues through the rhetoric evidenced by scientific publication. A seminar and laboratory course. May be repeated with different topics. (Occasional)
SENIOR CAPSTONE PROGRAM (SCP)
D. Randall Harshbarger, Director/Associate Professor of Interdisciplinary Studies

Senior Capstone courses are interdisciplinary seminars focused on significant questions or issues beyond those explored elsewhere in the curriculum. Their purpose is to provide a “capstone” for the general education program and to encourage students’ awareness of themselves as majors in their disciplines, of their vocation, and of their responsibilities as citizens. Seniors from different majors share and compare their perspectives and expertise and explore spiritual and ethical as well as intellectual values. Some courses require a service-learning component.

Successful completion of a Senior Capstone course is a graduation requirement for College of Liberal Arts students. Several courses from the curriculum below are offered each semester as well as in the summer. These courses will use materials from a variety of disciplines and require seminar discussions and extensive writing.

Enrollment in each section is limited to encourage participation. It is the student’s responsibility to arrange his or her schedule to accommodate one of these courses in the senior year. Senior Capstone courses are limited to students who have earned at least 90 hours credit. Only one Senior Capstone may be counted as part of the minimum requirement for graduation.

SCP 450. Search for Expression: The Arts and Society (3 hours)
An examination of the manner in which the performing and plastic arts affect contemporary American society. Particular attention will be given to the expressive characteristics of various art forms and their potential to enrich our lives individually and collectively. The ultimate goal of this course is to cultivate a civic awareness and appreciation of the significance of the performing and plastic arts. (Every year)

SCP 451. Self and Community: Changing Responsibilities in a Changing World (3 hours)
An examination of the potential conflict of values as we seek integrity and fulfillment within personal relationships, civic and corporate life, and global interconnections. Particular attention will be given to finding a balance of personal and communal responsibilities in regard to such topics as: the impact of technological change, economic and political globalization, changing forms of democratic citizenship, the future of the city, the meaning of human and religious diversity, and the sanctity of life. (Every year)

SCP 453. The Human Prospect in a World of Scarcity (3 hours)
An examination of contemporary problems and long range prospects for the U.S. and the world with respect to energy consumption, food supply, population growth, resource depletion, and environmental degradation and pollution. The technical, scientific, economic, sociological, political, and ethical dimensions of these problems will be explored. Particular attention will be paid to the relationship of “have” and “have not” nations and to the possibilities for change toward sustainable material well-being for the whole world. (Every year)

SCP 454. American Destinies Since the Great Depression (3 hours)
An examination of the essential character of the American experience as it has evolved through the lives of the three generations who have come to maturity since the Great Depression. Particular attention will be given to changes in personal values and meanings, in attitudes toward racial minorities and women, in our sense of national purpose, and in our understanding of our past and hopes for our future. (Every year)
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<th>Course Code</th>
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<td>SCP 455</td>
<td>Genocide and the Holocaust</td>
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<td>SCP 456</td>
<td>Male and Female in American Culture</td>
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<td>SCP 457</td>
<td>The Quest for Wholeness</td>
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<td>SCP 458</td>
<td>Death and Dying</td>
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<td>SCP 459</td>
<td>Black and White in American Culture</td>
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<td>SCP 460</td>
<td>In Search of a Calling: Issues of Vocation and Work</td>
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**SOCIOLOGY (SOC), INCLUDING ANTHROPOLOGY (ANT) and CRIMINAL JUSTICE (CRJ)**

Leona Kanter, Chair/Associate Professor
Joanna M. Watson, Professor
Fletcher Winston, Assistant Professor
Daniel P. Fischer, Eric K. Spears, and Charles H. Weston, Senior Lecturers

The objectives of the department are (1) to provide students with a critical awareness and understanding of the social world of which they are a part; (2) to familiarize students with their social responsibilities as members of society; (3) to provide a basic foundation for advanced study and possible careers in sociology or social work, criminal justice, and
anthropology; (4) to provide a knowledge of social interaction and social structure useful for students entering business, government, and the professions. A major in sociology consists of nine courses (29 hours) including SOC 101 (prerequisite to all 300 and 400 level Sociology courses), 301, 302, 304, 404a, and 404b, as well as one additional elective. In addition, one course must be taken from each of the following three:

1. Problems (SOC 210, 295, 310, 313, 315, 322, 345, 360)
2. Structures (SOC 320, 321, 323, 325, 330, 335, 340, 367)
3. Special areas (SOC 390, 395, 490, ANT 201, CRJ 260)

At least 15 hours toward the major must come from courses numbered above 300.

A minor in sociology consists of a minimum of 16 hours, including SOC 101, 301, and 304.

A minor in anthropology consists of a minimum of 15 hours, including ANT 201 and 12 additional hours in Anthropology, six of which must number 300 or above.

The minor in criminal justice consists of 15 credit hours, including SOC 101, CRJ 260, CRJ 490 (for 3 credit hours only), and two 300-level Criminal Justice courses. With permission of the chair, SOC 313 may be taken in place of one of the two 300-level CRJ electives in the minor.

Majors may qualify for Departmental Honors in sociology by qualifying for membership in Alpha Kappa Delta, the International Sociology Honor Society.

**SOC 101. Introductory Sociology** (3 hours)
A survey of the basic concepts, theories, methods, and research associated with the sociological analysis of society. Emphasis will be placed on the study of major forms of human association and interaction, as well as the social structures and processes that affect the individual. Laboratory activities complement classroom instruction. (Every semester)

**SOC 210. Social Problems: The Literature of Social Criticism and Change** (3 hours)
*(same as PLS 210)*
An examination of the principle causes, consequences, and solutions of major societal problems. The emphasis on specific social problems may vary, but attention will be given to such contemporary issues as social class inequities, discrimination, poverty, violence, deviance, social justice, population trends, technology and change. A service learning practicum may be required. (Every year)

**SOC 295. Social Inequality: Ethnic Minorities** (3 hours)
*(Same as AFR 295)*
Prerequisite: one semester of FYS or the equivalent
This course is designed to help students understand the theoretical base for the social inequalities that manifest themselves among ethnic minority groups in America. In this course, students will become aware of the nature of social differences in American society and investigate a number of current theories that examine the basis for these differences. (Every two years)

**SOC 301. Classical Sociological Theory** (3 hours)
This first course in a two-course sequence in sociological theory introduces students to the masters of sociological thought. It focuses on the influence of eighteenth and nineteenth century thinkers on the classical formulation of sociology's primary concerns and traditions. (Every fall semester)
SOC 302. Contemporary Sociological Theory (3 hours)
Prerequisite: SOC 301.
The second of two theory courses, this course emphasizes contemporary sociology focusing on Parsons’ Action Theory, Neo-functionalism, the Frankfurt School and Analytical Conflict Theory, Symbolic Interactionism, and alternative systems models. (Every spring semester)

SOC 304. Introduction to Social Science Research Methods (4 hours)
(Same as EES 304)
MAT 126 is recommended.
In this course students are introduced to fundamental ideas and methods of social science research, including the link between theory and research, the evaluation of research literature, the basics of research design, and the principle elements of surveys, experiments, and field research. Students will complete laboratory exercises in these areas and will learn basic descriptive statistics through the use of a standard statistical analysis program (e.g. SPSS). (Every spring semester)

SOC 310. Social Work (3 hours)
An historical and philosophical examination of social welfare services and social work practice. Attention is given to the societal and value context in which the American social welfare system evolved and to the development of social work as a profession. (Every spring semester)

SOC 313. Social Deviance (3 hours)
A study of the social boundaries that separate normal behavior from deviant behavior. This includes historical shifts in definitions of deviance, the social function of deviance, the influence of “moral entrepreneurs” and powerful groups in defining and enforcing deviance, and social efforts to minimize deviant behavior. Attention is also given to “ambiguous deviance” and the medicalization of deviance in American society. (Occasional)

SOC 315. Social Gerontology (3 hours)
A study of the biological, psychological, and sociological aspects of aging and the aged population in contemporary society. Special attention will be given to the economic, political, and social problems of the aged. (Every fall semester)

SOC 320. Social Interaction (3 hours)
The sociological study of the patterns and modes of social interaction conditioned by group membership; an analysis of the emergence of groups and the basis of their formation and function; and an exploration of implications of contacts between groups. The types of relations between groups and the reactions of groups and individuals in the group to social interaction are studied. (Every spring semester)

SOC 321. Global Social Inequality (3 hours)
This course deals with the nature and impact of economic, political, and status differences in modern societies. It examines theories of dependency, modernization, neo-colonialism, and cultural and civilizational clash. It is centrally concerned with the nature, distribution, and consequences of unequal wealth and power for social cohesion and stability at the individual and societal levels. (Every spring semester)

SOC 322. Justice, Equality, and the Challenge of Disability (3 hours)
(Same as PLS 322)
The course examines the social construction of disability within various cultural settings and historical periods. How do societies construct meanings about disability, cosmology, and
personhood? The course examines how the social contexts of disability overlap with economy, history, and tradition. Students will develop a knowledge base, and critical and reflective conceptions of ethics and justice in the world with emphasis on the community of persons with disabilities. Service-learning practicum required. (Every two years)

SOC 323. Medical Sociology (3 hours)
This course describes and contrasts the Functionalist, Conflict, and Symbolic Interactionist models of health and sickness. It traces the historical development of “illness” definitions as ways of defining, managing, and controlling behavior. Included in the course are discussions of medical “gatekeeping”, bioethical issues in medical decision-making, the formulation of national health care policy, and the organization of health care delivery systems. (Every two years)

SOC 325. Urban Ecology (3 hours)
(Same as EES 325)
The focus of “urban ecology” is the synergistic relationship between people and the urban environment (social, physical and institutional), to include the essential bond between human and natural environments. It includes the study of the historical development of cities, current urbanization trends and impacts, the critical role of the local community in the development of human relations and institutions, community leadership and organization, and the relationship of the urban and natural environment. (Every year)

SOC 330. The Sociology of Language, Culture, and Communication (3 hours)
The sociological study of language and communication with attention given to language as the organ or medium for comprehending reality; semantics and the problem of meaning; the relation between language and the cultural history of a people. (Occasional)

SOC 334. The Family (3 hours)
(Same as WGS 334)
Prerequisite: SOC 101 or WGS 180.
A study of family structure and functions including the changing role of the family in history; gender roles within the family; the economic, biological, and psychological aspects of the contemporary American family; and family disorganization and reorganization. (Every two years)

SOC 340. Sociology of Religion (3 hours)
A study of religion in American society from the standpoint of its relationship to the economic, political, and cultural life of the people. (Every two years)

SOC 345. Environmental Justice (3 hours)
(Same as AFR/EES/POL 345)
This course examines the impact of institutional racism on environmental and health policies, industrial practices, government regulations and rule making, enforcement, and overall quality of life in people-of-color communities. The course will examine the nexus between environment protection and civil rights, and the impact of the environmental justice national environmental groups. (Every two years)

SOC 360. Environmental Sociology (3 hours)
(Same as EES 360)
Prerequisite: EES 150 or SOC 101
This course uses the sociological perspective to examine environmental problems on the local, national, and global level. It explores how culture and social institutions affect the environment as well as the distribution of environmental problems according to socio-economic
conditions. This course also examines the environmental movement and its potential to address environmental problems. (Every two years)

SOC 367. Law and Society (3 hours)
( Same as CRJ 367)
Prerequisite: CRJ 260 or SOC 101.
This course studies the moral and cultural values which shape our legal system and the pervasive impact of that system on our society and culture. Through an in-depth examination of the most controversial legal-societal issues of the day, the course will illuminate the evolving role and interaction of the public, the judiciary, and the legislature in defining and enforcing social norms, thus shaping the American social and cultural landscape. (Every two years)

SOC 390. Special Topics in Sociology (3 hours)
Prerequisite: consent of instructor and chair.
A study of some significant topic in sociology that is not available through other departmental course offerings. (Occasional)

SOC 395. Supervised Independent Reading and Research (3 hours)
Prerequisite: consent of instructor and chair.
Intensive reading of selected works on some sociological topic or directed research on a sociological problem involving the collection of original data. May not be repeated. (Occasional)

SOC 404a. Empirical Project I (2 hours)
Prerequisite: SOC 304.
Using the knowledge and skills acquired in SOC 304, students will develop an acceptable proposal for an empirical project on a sociological topic. Additional training in inferential statistics using a standard statistical analysis program (e.g. SPSS) will be provided. (Every fall semester)

SOC 404b. Empirical Project II (2 hours)
Prerequisite: SOC 404a.
Students will implement and complete the project proposed in SOC 404a. Additional training in inferential statistics using a standard statistical analysis program (e.g. SPSS) will be provided. Students will produce written reports of their project and will report their results at an academically recognized public forum (e.g. Georgia Sociological Association meetings, Mercer University’s Undergraduate Research Symposium, or the Southeastern Undergraduate Sociological Association meetings at Emory/UGA). (Every spring semester)

SOC 490. Internship Program (3-6 hours)
Prerequisite: consent of instructor and chair.
An internship program offering practical experience through field work. The student is responsible for all arrangements. (Every semester)

ANTHROPOLOGY (ANT)

(ANT 201 is a prerequisite to all other ANT courses.)

ANT 201. Introduction to General Anthropology (3 hours)
The study of the evolution of humans and culture including the dawn of civilization, race and culture; also primitive culture and society (food gathering, art, religion, language, the family, social classes, clothing and ornament, etc.) Attention is also given to the American culture configuration, human behavior in cross cultural perspective, and the field of culture and personality. (Every semester)
ANT 350. Cultural Anthropology (3 hours)
An analysis of the cultural areas of the world with in-depth studies of cultures within each of these areas, including the way the cultures were before contact with Western civilization and the effect of this contact on the cultures. (Every year)

ANT 352. Cultures of the Americas (3 hours)
An exploration of the migration and first inhabitants of the “New World” and of the cultures which they developed in relative isolation. Their cosmologies, social organization, modes of subsistence, rituals and art will be studied. We will also examine their legacy which remains with us today. Field trips included. (Every two years)

ANT 354. Cultural Archaeology (3 hours)
The study of extinct cultures using artifactual remains. The data gathering techniques of excavation, labeling, and dating are demonstrated. Prevailing models of interpretation are reviewed, and the notion of cultural process is explored. Field trips are required. (Every two years)

ANT 356. Archaeology of the Goddess (3 hours)
An examination of the existence of feminine deity through evidence offered by the prehistorical archaeological record and origin mythologies. The dynamics of cultural change are explored in tracing the rise of patriarchal religion. (Every two years)

ANT 390. Special Topics in Anthropology (3 hours)
Prerequisite: consent of instructor.
A study of some significant topic in anthropology that is not available through other departmental course offerings. (Occasional)

ANT 490. Internship (3-6 hours)
Prerequisite: consent of instructor and chair.
The internship offers practical experience through field work. (Every semester)

CRIMINAL JUSTICE (CRJ)

(CRJ 260 is prerequisite to all other CRJ courses.)

CRJ 260. Criminal Justice System (3 hours)
An overview and analysis of the major components of the criminal justice system: criminal law, law enforcement, the judicial and correctional processes, and related topics. (Every fall semester)

CRJ 360. Criminology (3 hours)
An analysis of the major theories of criminal behavior, the nature and types of crime, and the relationship between crime and society. Special emphasis will be placed on the relationship between the notion of crime, punishment, and justice. (Every two years)

CRJ 362. Juvenile Delinquency (3 hours)
A study of the nature and extent of juvenile delinquency in contemporary society, with particular emphasis on theories of causation, treatment, and control. (Occasional)

CRJ 367. Law and Society (3 hours)
(Same as SOC 367)
Prerequisite: CRJ 260 or SOC 101.
This course studies the moral and cultural values which shape our legal system and the pervasive impact of that system on our society and culture. Through an in-depth examination of the most controversial legal-societal issues of the day, the course will illuminate the evolving role and interaction of the public, the judiciary, and the legislature in defining and enfor-
ing social norms, thus shaping the American social and cultural landscape. (Every two years)

CRJ 390. Special Topics in Criminal Justice (3 hours)
Prerequisite: consent of instructor and chair.
A study of some significant topic in criminal justice that is not available through other departmental course offerings. (Every semester)

CRJ 490. Internship (3-6 hours)
Prerequisite: consent of instructor and chair.
The internship offers practical experience through field work. The student is responsible for all arrangements. (Every semester)

SOUTHERN STUDIES (SST)

Sarah Gardner, Director/Associate Professor of History

A concentration in Southern Studies offers students the opportunity to gain a rigorous interdisciplinary perspective on the rich and varied culture and history of the American South. Students receive training in different disciplines, including southern history and literature, learning in their senior year to integrate these discipline-specific approaches in a writing-intensive senior capstone experience in Southern Studies.

The Southern Studies concentration consists of ENG/SST 236, ENG 357 and 358, HIS 356, 361, 362, and 363, AFR 359 and 360, SST 480, and two courses approved by the Southern Studies Committee. Students may attain honors in Southern Studies by maintaining a minimum overall 3.5 grade point average in their undergraduate program, achieving a minimum 3.5 grade point average in courses in the concentration, and successfully completing a Senior Research Project at a level judged worthy of honors by the Southern Studies Committee. A committee of Southern Studies faculty members oversees the administration of the concentration.

SST 236. The Study of a Literary Theme: (variable topic) (3 hours)
(Same as ENG 236)
Prerequisite: FYS 101.
This course examines a particular theme in various literary forms. In addition to learning how to read a literary text closely and carefully, the student will be required to develop an ability to read, think, and write critically. (Every year)

SST 280. Special Topics in Southern Studies: (Subtitle) (1-3 hours)
Prerequisite: to be determined by the instructor.
A study of some significant topic in Southern Studies that is not covered in the regular course offerings. May be repeated with different topics. (Occasional)

SST 380. Special Topics in Southern Studies: (Subtitle) (1-3 hours)
Prerequisite: to be determined by the instructor.
A seminar involving reading and discussion of a specific topic in Southern Studies that is not covered in the regular course offerings. May be repeated with different topics. (Occasional)

SST 480. Senior Seminar in Southern Studies (3 hours)
A course designed to fulfill the exit requirement for students seeking a concentration in Southern Studies. Emphasizing supervised research projects, this seminar enables students to compare methodologies and perspectives to examine specific problems in Southern Studies, and sharpen their skills as researchers and writers. This course is required for the Southern Studies concentration. (Every third semester)
THEATRE (THR)

For description of the program of study in this area, of the requirements for the major and the minor, and of the courses offered, see the heading COMMUNICATION STUDIES AND THEATRE in this catalog.

UNIVERSITY PROGRAMS

The College of Liberal Arts offers a number of courses in support of University-wide curricular and co-curricular programs. Many of these courses are offered in conjunction with other Mercer University units. The co-curricular course areas include: Cooperative Education (CED), International Study Abroad (ISA), Learning Skills (LSK), Residence Life (RSL), Service Learning (SRV), and University Life (UNV). The course offerings for these programs are coordinated by the Associate Deans' Office in the College of Liberal Arts.

COOPERATIVE EDUCATION (CED)

CED 190-290-390-490. Cooperative Education (1 hour)
Prerequisites: Departmental approval and Office of Career Services approval; enrollment in cooperative education or internship program.
These courses award credit for successful enrollment in cooperative education or internship programs—one hour of credit per semester of enrollment. Students who are formally admitted into a cooperative education or internship program may be certified as full-time students during terms of employment for enrollment verification purposes. Work assignments for these programs are matched to the student's progress in the academic curriculum to provide a stimulating and challenging employment situation. This course is graded S/U. CED courses are jointly offered by the College of Liberal Arts and the Office of Career Services. (As needed)

INTERNATIONAL STUDY ABROAD (ISA)

The Office of International Programs offers a variety of programs to facilitate foreign educational experiences. These programs include semester-long and year-long exchange and transient programs, faculty-led programs and Mercer on Mission programs. Mercer University is committed to helping students take full advantage of opportunities to pursue their vocation and gain true understanding of globalization and the major cultural, political, and economic differences among modern societies through studying abroad. Mercer's commitment is reflected in the offering of a cross-cultural preparation course to all students planning a year, semester, or short term experience abroad intended to help students establish an awareness of their own cultural identity, as well as to give them the necessary tools to analyze and reflect upon a foreign culture, and to help them set and reach academic, personal, and vocational goals in relation to their experience abroad. This course is mandatory for all students planning a semester or year abroad and recommended for students participating in a faculty-led or Mercer on Mission experience abroad, and it is graded independently of coursework done abroad.

ISA 101. Cross-Cultural Orientation (1 hour)
Co-requisite: Acceptance into Mercer University's Study Abroad program through the Office of International Programs.
Students explore personal learning objectives, participate in cross-cultural competency training activities, reflect on culture-crossing focused readings and experiences, and com-
mit to an evaluative method for determining the level of success reached at completion of term abroad. ISA courses are jointly offered by the College of Liberal Arts and the Office of International Programs. (Every semester)

**LEARNING SKILLS (LSK)**

Students interested in improving their college study skills are encouraged to enroll. Because the courses are individualized, they may be taken out of sequence and there are no prerequisites.

**LSK 185-186. College Study Skills (1 hour)**
The purpose of this course is to enable students to improve their college study skills. The course is highly individualized, with topics such as time management, note taking, test tasking, and improving concentration. The two courses may be taken in any sequence. Students taking a second course will continue to develop skills acquired the previous semester. Each course offers one hour of credit, may not be retaken for additional credit, and is graded S/U. LSK courses are jointly offered by the College of Liberal Arts and the Academic Resource Center. (Every semester)

**RESIDENCE LIFE (RSL)**

**RSL 201. Resident Assistant Development (1 hour)**
Prerequisite: Selection as a first time Resident Assistant or Resident Director for the current academic year.
The purpose of this course is to prepare Resident Assistants (RA's) for their first year in the position. RSL 201 is intended to assist new RA's in helping to make a successful college experience for their residents. The RA's will be trained on proper emergency response protocol, identifying campus support systems, creating better academic habits and developing leadership skills. The class will also assist the RA's in helping themselves and their residents succeed intellectually, socially, and personally during their years on Mercer's campus. This course is graded S/U and can be taken only once. RSL courses are jointly offered by the College of Liberal Arts and the Office of Residence Life. (Every year)

**SERVICE LEARNING (SRV)**

The College of Liberal Arts intends to help Mercer University students to commit to living as engaged and informed citizens, and this intention is reflected in the offering of service-learning sections of selected courses. In service-learning sections, service informs learning in the same manner as a text, and civic engagement is an important course component.

**SRV 199. Service Learning (1 hour)**
Co-requisite: enrollment in a specially designated service-learning course section.
Students enrolled in specially designated service-learning sections commit to working at off-campus community-service sites. This work experience is tied to the learning objectives of the parent course and will entail additional academic work, as described by the course syllabus. Students receive one semester hour of credit, through SRV 199, for the additional academic work associated with three hours total (minimum one hour on site) of service-related work each week. The grade assigned for SRV 199 is the same grade assigned for the parent service-learning section. (As needed)
UNIVERSITY LIFE (UNV)

UNV 101. The First-Year Student Experience (1 hour)
Who can answer my questions? What resources are available? How can I get the most out of college? This course introduces students to the structure of higher education and specific Mercer University policies. Issues such as successful study skills, cultural diversity, critical thinking, ethics, personal relationships, health, safety, and careers are all introduced and discussed. This course is required of all freshmen who are not enrolled in an experiential section of First-Year Seminar and is graded S/U. UNV courses are jointly offered by the College of Liberal Arts and the Office of Academic and Advising Services. (Every year)

UNV 201. Preparing Peer Advisors for UNV/MAP 101 (2 hours)
Prerequisite: Selection as Peer Advisor for UNV/MAP 101.
The purpose of this course is to prepare Peer Advisors (PA’s) to co-facilitate the UNV/MAP 101 course. UNV/MAP 101 is intended to assist new students in making more successful transitions to college. These students should better understand the value of a liberal arts education, identify campus support systems, develop better academic habits, and succeed intellectually, socially, and personally during their first year at Mercer. The PA’s work with instructors to plan weekly classes, attend all class sessions, facilitate class discussions and exercises, and provide insight determined by the topic at hand. Other duties may be determined by the UNV/MAP 101 instructor in consultation with the PA. Additionally, they will provide assistance and support to new students outside of the classroom, as necessary and appropriate, during the students’ first semester. This course is graded S/U and can be taken only once. UNV courses are jointly offered by the College of Liberal Arts and the Office of Academic and Advising Services. (Every year)

WOMEN’S AND GENDER STUDIES (WGS)
Mary Alice Morgan, Director/Professor
Margaret Dee Bratcher, Mary Ann Drake, Cynthia Gottshall, Robert Hargrove, Eimad Houry, Miranda Pratt, and Beth Stewart, Professors
Darlene Kaye Flaming, Sarah Gardner, Linda Hensel, Lydia Masanet and Anna Krugovoy Silver, Associate Professors
Tia Gafford-Williams and Lori A. Johnson, Assistant Professors

The Women’s and Gender Studies Program offers an opportunity for both male and female students to explore the different ways that men and women have been acculturated throughout history and the changing ways that masculinity and femininity are being defined in contemporary society. Additionally, the major and minor provide a comprehensive, coherent, and carefully chosen course of study that enables students to reach a more complete understanding of the history, position, and achievements of women in culture. Students will be introduced to the questions raised and methods used in the new scholarship on women and gender.

An interdisciplinary program of study, the Women’s and Gender Studies major and minor also complement a wide range of other fields of study. Students planning careers in law, business, medicine, education, service, and the sciences find the study of gender in society useful.

A major in Women’s and Gender Studies consists of 27 semester hours, including WGS 180, 201, 401, three hours of either WGS 485 or 490, and fifteen hours of additional coursework. Of those fifteen hours: nine must be at the 300 level or above, one course must fulfill the global/multicultural designation, and courses must be in more than one of the following areas: Humanities, Social Sciences, and Natural Sciences.
Area designations for regularly offered courses are as follows. Students should consult the WGS program director for designations for “Special Topics” courses.

- **Global/Multicultural**: WGS 240, 389, 314 or approved WGS 285, 385, 485.
- **Humanities**: WGS 240, 335, 363, 370, 377, 378, 389 or approved WGS 285, 385, 485.
- **Social Sciences**: WGS 270, 332, 314, 383, 334 or approved WGS 285, 385, 485.
- **Natural Sciences**: Approved WGS 285, 385, 485.

A minor in Women’s and Gender Studies consists of 15 semester hours, including WGS 180, 201, 401, and at least two additional courses, one of which must be numbered 300 or above.

It is highly recommended that students who wish to enroll in WGS cross-listed courses have already taken WGS 180 or relevant prerequisites or the introductory course(s) in the cross-listed discipline.

Majors seeking Honors in Women’s and Gender Studies may do so by fulfilling the following requirements:

1. A minimum average 3.50 GPA in the core WGS curriculum and cross-listed courses.
2. An overall minimum average 3.50 GPA.
3. Successful completion of a Senior Research Project at a level judged worthy of Honors by a panel of three faculty, with the director of the panel being a faculty member who teaches within the Women’s and Gender Studies Program. Upon successful completion of the project, the student will receive 3 hours of credit for WGS 490.

### Major Requirements:

I. **Core**: 9 hours
   - WGS 180, Gendered Lives.
   - WGS 201, Women and Society. Prerequisite: WGS 180.
   - WGS 401, Feminist Theory. Prerequisites: WGS 180, 201.

II. **WGS or cross-listed 200-level and 300-level courses**: 15 hours.
    Students choose 5 courses with the additional stipulations that:
    - Nine hours must be at the 300 level or above.
    - At least one course must have a global/multicultural/ethnic minority component.
    Courses must be in at least two of the following three areas:
    - Humanities
    - Social Sciences
    - Natural Sciences

III. **Coursework at 400 level**: at least 3 hours
    - WGS 485: Seminar (3 hours) or
    - WGS 490: Directed Independent Study (1-3 credit hours)

**Total**: 27 hours

### WGS 180. Gendered Lives (3 hours)
An examination of how we live our lives as “men” and “women.” This course investigates the biological basis and cultural construction of gender, with particular attention to cross-cultural examples and the history of challenges to the status quo of gendered societies. (Every semester)
WGS 201. Women and Society (3 hours)
Prerequisite: WGS 180.
An examination of the images, roles and contributions of women in scientific, historical, literary, religious, social, political, philosophical, and artistic contexts, to include contemporary issues. Includes an introduction to research methodologies appropriate for women's and gender studies. (Every year)

WGS 240. Multicultural Women Writers (3 hours)
(Same as ENG 240)
Prerequisite: FYS 101.
An analysis of the writings of contemporary American women of diverse cultural backgrounds. Reading and discussing novels, short stories, and poetry, this course will explore the ways that these writers navigate being American and being culturally "other" within a homogenizing "melting pot" society. (Every two years)

WGS 270. Psychology of Gender (3 hours)
(Same as PSY 270)
Prerequisite: PSY 101 or consent of instructor.
Examination of the theory and context in which the social construct of "gender" develops, and the impact this has on our perceptions of ourselves, how others perceive us, and how we relate to others. Emphasis will be placed on the diversity of such experiences. (Every two years)

WGS 285. Special Topics (3 hours)
A study of some significant topic in women's and gender studies not covered in the regular offerings. May be repeated with different topics. (Every year)

WGS 310. Race, Gender and Media (3 hours)
(Same as AFR 310 and JMS 310)
This course will critically examine the role of the media in enabling, facilitating, or challenging the social constructions of race and gender in our society. We will consider the mass media to be one among many other social institutions such as religion, education, and family, which strongly influence our everyday notions of race and gender. The course will address a variety of entertainment and news content in print and electronic media. (Every other year)

WGS 314. Women in Developing Countries (3 hours)
(Same as POL 314)
Prerequisite: POL 253/IAF 253 or consent of instructor.
This course offers an opportunity to learn about the status of women in developing countries, in general, and the role of women in development, in particular. The course examines the substance and direction of interactions among women, their political structures, and economic systems throughout the developing world. Multiple perspectives and models are explored, including, but not limited to, dependency theory, modernization theory, globalization, feminist sociology, and post modernism. (Every two years)

WGS 315. Gender and Communication (3 hours)
(Same as COM 315)
A study of gender in relation to the public sphere. The primary focus is on feminist approaches to rhetoric and rhetorical theory. Students will also examine how gender intersects with the study of human relationships. (Every other year)

WGS 332. Women, Law and Politics (3 hours)
(Same as POL 332)
Prerequisite: POL 101 or consent of instructor
This course examines the legal and political efforts of women to obtain equality in American society. The course focuses on 1) the landmark legal cases and the important political milestones on the path towards full gender equality; 2) the challenges facing women seeking leadership roles in politics and society; 3) the actual and potential impacts women have on political institutions and policy outcomes; and 4) current public policy areas that have a significant impact on the lives of women and girls. (Every two years)

**WGS 334. The Family**  
(3 hours)  
*(Same as SOC 334)*  
Prerequisite: SOC 101 or WGS 180.  
A study of family structure and functions including the changing role of the family in history; gender roles within the family; the economic, biological, and psychological aspects of the contemporary American family; and family disorganization and reorganization. (Every two years)

**WGS 363. Women and Christianity**  
(3 hours)  
*(Same as CHR 363)*  
Prerequisite: CHR 101 or CHR 150, and WGS 180 or permission of the instructor.  
A biblical, historical, and theological examination of the role of women within the Judaeo-Christian tradition. (Every three years)

**WGS 370. Women in Art**  
(3 hours)  
*(Same as ART 370)*  
The contributions of women in the field of art and the social context in which they have worked as well as the depiction of women in works of art are both considered in order to discover the criteria by which we judge works of art (and artists) and how visual images can reinforce or change our sense of reality, such as assumptions about gender roles. (Every three years)

**WGS 377. U.S. Women’s History, Colonial Era to the Present**  
(3 hours)  
*(Same as HIS 377)*  
A study of the meaning and place of women in U.S. society from the colonial era to the present through reading major secondary works and selected primary documents in the field. Students address major themes in U.S. women’s history, including family, sexuality, work, and reform, within the broader context of American history. In addition, this course addresses the historiography, implications, methodologies, and future directions of the discipline. (Every two years)

**WGS 378. Images of Women in Literature**  
(3 hours)  
*(Same as ENG 378)*  
Prerequisite: FYS 101.  
A study of the literary representation of women, with emphasis on the lives and careers of women writers. Authors covered may include Austen, Bronte, Wharton, Woolf, Morrison, and others. (Every two years)

**WGS 383. AIDS: Narratives of Disease**  
(3 hours)  
*(Same as EES 383)*  
This interdisciplinary course gives students sufficient information for them to make informed decisions about their behaviors and their lives. Students will confront and grapple with the biological, social, historical, environmental, psychological, and cultural issues which the AIDS pandemic represents. The diverse populations affected by AIDS—gays, children, women, Africans—will be discussed. AIDS and other historic plagues raise numerous moral and ethical issues regarding public health, resource allocation, individual versus group rights, and the sweeping effects of trying to keep people healthy. Books, articles, speakers, films, and classroom discussion serve as the texts for the course. (Occasional)
WGS 385. Special Topics (3 hours)
Prerequisite: to be determined by the instructor.
A study of some significant topic in women's and gender studies that is not covered by the department's regular course offerings. May be repeated with different topics. (Every year)

WGS 389. The Black Woman (3 hours)
(Same as AFR 389)
An historical and literary examination of the black woman and her role in American culture. (Every two years)

WGS 390. WGS Preceptorship (2 hours)
Prerequisite: WGS 180.
Selected upperclass students will serve as teaching facilitators in WGS 180. They will attend all classes, read the assigned work, and participate in class discussions. Each student will reflect on the preceptor experience by writing a learning journal during the semester. This course will be graded on an S/U basis, may be taken only once, and cannot be counted as one of the courses required for the WGS minor. (Every semester)

WGS 401. Gender Theory and Feminist Thought (3 hours)
Prerequisites: WGS 180, WGS 201, and one WGS course numbered above 300, or consent of instructor.
An interdisciplinary examination of theoretical perspectives in women's and gender studies, including the history of Western ideas on gender and the impact on traditional academic disciplines of the “new scholarship” on women and gender. Connections between critical theories and collective movements or social change will be emphasized. (Every third semester)

WGS 480. Internship (3-12 hours)
Prerequisites: WGS 180 and 201 and consent of WGS Director.
Open to WGS majors and minors only. Does not count toward the major or minor.
An internship offering majors and minors practical field work with local or national women-oriented organizations. Students are expected to work for the local or national agency for no fewer than 3 hours per week for each credit hour awarded. Graded on an S/U basis. (As requested)

WGS 485. Seminar (3 hours)
Prerequisite: to be determined by instructor.
Structured seminar-style discussion involving intensive study of an issue or topic in women's and gender studies. May be repeated with different topics. (Every year)

WGS 490. Directed Independent Study (1-3 hours)
Prerequisite: consent of the instructor.
An intensive reading and research project culminating in either a research paper or an annotated bibliography. May be repeated with different topics. (1-3 hours credit, depending upon the scope of the project). (As requested)

WORLD LITERATURE (WLT)
For a description of the courses offered in World Literature, see the heading FOREIGN LANGUAGES AND LITERATURES in this catalog.
The Eugene W. Stetson School of Business and Economics
Macon Campus

William Stewart Mounts, Jr., Ph.D., Interim Dean/Professor
Gina L. Miller, Ph.D., Associate Dean/Professor
Brett Katzman, D. David McIntyre, John R. Miller, Cheryl Tibus, Michael Weber, and William V. Luckie (Emeritus), Assistant Professors
Carolina Graham Austin, Visiting Assistant Professor
Stephanie Morris and William Vincent, Lecturers

The Mission of Mercer University’s Stetson School of Business and Economics

Mission

The Stetson School of Business and Economics (SSBE) promotes the advancement and integration of quality business education and practice. In support of Mercer University’s mission, the school provides undergraduate and graduate programs that are designed to enable, enhance, and expand professional careers, civic responsibility, and lifelong learning.

Performance Objectives

Fulfillment of the mission is gauged by the SSBE’s performance as measured against the following objectives:

1. to graduate students who possess the requisite knowledge and skills for productive and continuing careers in business, government, and other institutions;
2. to prepare and enable students to work effectively in the increasingly complex and diverse environments of modern organizations;
3. to provide students with opportunities to identify ethical dilemmas and ethical implications of decision-making inherent in business and society;
4. to graduate individuals who possess communication, critical thinking, problem-solving, and other creative skills necessary for obtaining and maintaining positions in various organizations;
5. to provide students with examples of and opportunities for integration of business theory and applications;
6. to promote the values of community service and social responsibility by providing opportunities for student involvement in community and professional services.
Operational Priorities

The Stetson School of Business and Economics supports the teacher-scholar model that views teaching, faculty scholarship, and service as interactive elements in the educational process. Teaching includes effective classroom instruction and advising. Scholarship includes both intellectual contributions to the business field and continued individual professional development. Service includes contributions to the school, the University, the business community, and society.

Accreditation


Values

In fulfilling the mission and by following the operational priorities, the SSBE supports the following values:

1. commitment to teaching excellence;
2. commitment to scholarship and service that enhance the learning environment;
3. collaboration with business and academic communities to create, share, and apply knowledge;
4. inclusion of stakeholder perspectives in decision-making and continuous improvement;
5. creation of a learning community that fosters ethical decision-making and intellectual curiosity;
6. sustainment of a personalized, student-oriented environment that facilitates collaboration and on-going relationships among students, faculty, alumni, and the business community;
7. value of civic responsibility and the importance of community and professional services;
8. diversity of thought, perspective, and experience in faculty and students.

Code of Conduct

Honesty and integrity are necessary to the academic and professional functions of business. Acts of dishonesty undermine the basic foundation of the academic environment. Students have a responsibility to: strive toward, and encourage the pursuit of academic excellence and professional knowledge; conduct themselves in a dignified and ethical manner; abide by the procedures, rules, and regulations of Mercer University; and respect the guidelines prescribed by each professor in the preparation of academic assignments. On the Macon campus, cases of alleged infractions of these procedures and/or prescriptions shall be governed by the policies and procedures of the Mercer University Honor System for undergraduate schools.

Undergraduate Degrees

The Stetson School of Business and Economics offers the Bachelor of Business Administration (B.B.A.) degree, with a managed academic path to success (MAPS) program of study.
Students interested in combining their business studies with an exposure to engineering fundamentals and psychology should consider the industrial management program jointly offered by the Stetson School of Business and Economics, School of Engineering, and Psychology Department of the College of Liberal Arts. More information may be found in the “School of Engineering” section of this catalog.

Graduate Degrees

Information on the Master of Business Administration program is published in this catalog in the “Graduate Studies” section.

Study Abroad Program

The Stetson School of Business and Economics Study Abroad Program offers students an excellent opportunity to study different cultural and organizational perspectives and to explore their effects on business concepts and practices. This international experience, which generally carries six (6) hours of credit in business, is an important component of the school's academic programs. The study abroad program includes lectures in international management, marketing, finance, law, cross-cultural simulations, and visits to varied public and private sector organizations. Interested students should contact the program director for specific information. A variety of other study abroad programs are available through the University’s Office of International Programs.

International Student Services

The University provides information to international students about government regulations concerning F-1 Student Visas and other assistance services. International students are encouraged to seek assistance from the Division of Student Life and from the Office of International Programs.

UNDERGRADUATE PROGRAMS, POLICIES, AND PROCEDURES

Development of a Managed Academic Path to Success (MAPS)

Upon entering the University, all students, freshmen and transfers, indicating a preference for the B.B.A. degree are admitted to the Stetson School of Business and Economics. At this time, each student is assigned to a faculty advisor. All students in the Macon day program enter under the managed academic path to success (MAPS) program of study. The concept of this program is that students are taken on a guided journey and discover themselves, their life aspirations, and an understanding of how these translate into a career path in business. In conjunction with an advisor, and generally around the second semester of his or her sophomore year, each student will develop a specific set of courses constituting his or her MAPS program of study. The student is then assigned to a faculty advisor appropriate to his or her MAP.

A MAPS program of study may be changed by following a defined procedure in consultation with an advisor. Caution: a belated change in a MAPS program of study may extend the time needed to complete a degree, since all the requirements of the new program of study must be met.

Undergraduate Transfer and Equivalency Credit Policies

The following policies concern academic credit transferred from other regionally accredited institutions of higher education and courses taken in other units and at other locations within the University.
1. Semester credits that are accepted for transfer into the University are calculated on a one-for-one basis. Each transferred quarter hour of credit is awarded 2/3 of a semester hour of credit. Credits taken in any school or college of the University are recognized in all other schools and colleges of the University.

2. To fulfill any science general education requirement, transferred courses must include a laboratory component.

3. Upper-division credit will be granted for business courses taken at another regionally accredited four-year institution. Upper-division credit for the business core courses (BUS 350, ECN 301, ECN 302, ECN 303, FIN 362, MGT 363, and MKT 361) taken at a two-year institution can be obtained by:
   a. Taking the CLEP test (if available) and earning a score in the 50th percentile or above, or,
   b. Taking an upper division course (300- or 400-level) in the same discipline and passing with a grade of C or better. This would validate the lower-division course work, thereby satisfying the core requirement. Validation of the course does not reduce the number of upper-division hours needed to graduate. Upper-division credit will be granted for BUS 346 taken at a two-year institution.

Credit-by-Examination

Credit-by-examination toward undergraduate degrees may be earned through the College Level Examination Program (CLEP). On the general examination, 3 semester hours may be earned on each of two subtests when the percentile score is 50 or above and the score on each subtest is at the 50th percentile or above. On the subject examination, 3 or 6 semester hours (depending on the examination) may be earned if the score meets the 50th percentile. Credits on the general or subject examinations have no grade point values.

Credit is awarded to those students who take an Advanced Placement (AP) course and score a three (3) or better on the examination administered by the Educational Testing Service. Applicants should request that The College Board send test results to the Office of Undergraduate Admissions. Credit is awarded for scores of 5, 6, or 7 on the higher level examinations of the International Baccalaureate Program.

CLEP credit for courses in the major areas must be approved by the faculty of the academic discipline concerned. An official transcript from the College Entrance Examination Board must be provided in order for the CLEP credit to be accepted as transfer credit.

Students presenting Advanced Placement, CLEP, or International Baccalaureate scores may not receive more than 32 hours total credit from any or all three sources. Under highly unusual circumstances, an appeal to the dean may be made for credit greater than 32 hours.

Satisfactory- Unsatisfactory Grading Option

Students seeking the B.B.A. degree (regardless of grade average or year at Mercer) are permitted to take two courses per year on a satisfactory-unsatisfactory basis, with the following restrictions:

1. Required mathematics or computer science courses may not be taken on an S-U basis.
2. No course in accounting, business, economics, finance, management, or marketing or any course that counts toward a managed academic path to success program of study or the business core curriculum may be taken on an S-U basis, unless the course is graded on a non-optional S-U basis.
Courses that are graded on a non-optional satisfactory-unsatisfactory basis will not count toward the allowable maximum of two per year.

**Curriculum Comments**

Business students should be especially careful in selecting courses each term, even beginning in the freshman year. There are few free elective choices because of the general education requirements, mathematics and computer science requirements, the twelve-course required business core, and the managed academic path to success (MAPS) program of study.

The number of free elective classes is determined by many factors. A student who is not exempt from any courses will have only 12 - 18 hours of totally free electives within the minimum 128 semester hours required for graduation. Students should consult their advisors to determine the number of free electives they may take. Students should review the prerequisites for courses, included with the course descriptions, to ensure that these prerequisites have been satisfied before attempting to register for courses.

Hours of credit toward graduation are not awarded for exempted courses. Hours of credit are awarded only for courses successfully completed, courses transferred in, and examinations successfully completed through the College Level Examination Program (CLEP), Advanced Placement (AP), International Baccalaureate (IB), or the University's credit-by-examination process.

For special topics and research in accounting, business, economics, finance, management, and marketing, credit hours are determined by the nature of the topic, with a maximum of 3 hours for a given subtitle. Various subtitles may be taken for a maximum of 6 hours of credit in a student's managed academic path to success program of study. A maximum of 6 hours of additional special topics credit may be taken outside the MAP but within the school.

“MAP 101: The Freshman Business Experience” is required of all fall semester freshmen enrolled in the SSBE. The goal of this course is to prepare business students for the journey ahead. The course introduces students to the structure of higher education and specific Mercer policies. It will also orient students to The MAPS Program and acquaint them with the resources in SSBE. Students are evaluated on a letter-graded basis.

**Recognition of Scholarship**

**President's List and Dean's List**

The requirements for inclusion on the President's List and the Dean's List are specified in the University's undergraduate academic policies.

**Honorary Societies**

**Beta Gamma Sigma**

Beta Gamma Sigma is the honor society for students enrolled in business and management programs accredited by AACSB International – The Association to Advance Collegiate Schools of Business. Election to lifetime membership in Beta Gamma Sigma is the highest honor a business student anywhere in the world can receive in an undergraduate or master's program at a school accredited by AACSB International. Students, based on high academic achievement, and tenured business school faculty members are the only ones eligible for membership in the Society. With more than 500,000 members worldwide, the Society's membership comprises the brightest and best of the world's business leaders.

Beta Gamma Sigma membership provides recognition for a lifetime. With alumni chapters in major metropolitan areas across the United States, the BGS CareerCentral job
board, and the BetaLink on-line membership community, those recognized for their academic achievements at the Stetson School of Business and Economics can continue an active relationship with Beta Gamma Sigma long after graduation. This lifelong commitment to its members' academic and professional success is defined in the Society's mission: to encourage and honor academic achievement in the study of business and personal and professional excellence in the practice of business."

**Omicron Delta Epsilon**

The objectives of Omicron Delta Epsilon are recognition of scholastic attainment and the honoring of outstanding achievements in economics; the establishment of closer ties between students and faculty in economics within colleges and universities and among colleges and universities; the publication of the official journal, The American Economist; the sponsoring of panels at professional meetings and the Irving Fisher and Frank W. Taussig competitions. Undergraduates must have completed at least 12 hours of economics, have an overall scholastic average of B in economics and an overall average of B, and rank in the upper third of the class.

**School Honors at Graduation**

Honors may be earned independently from overall undergraduate honors (cum laude, magna cum laude, summa cum laude). School honors recognize those students who have performed at an exceptionally high level on course work within the SSBE. The requirements are as follows: a grade point average of 3.75 or higher must be earned on core curriculum courses and in the managed academic path to success program of study. (Transfer students must attain a 3.75 or higher grade point average on all courses taken at Mercer in the core curriculum and the managed academic path to success program of study and a combined grade point average of 3.75 or higher on all courses in the core curriculum and managed academic path to success program of study at Mercer and at other institutions from which credit is received.)

**Academic Warning, Probation, and Suspension**

The policies on academic warning, probation, and suspension are specified in the University's undergraduate academic policies. Students who are subject to suspension because they have not met minimum academic requirements by the end of the regular academic year will be allowed to attend the summer term in an attempt to meet the minimum.

**Academic Internships**

Academic internships are available and are an option in the experiential component of each student’s managed academic path to success program of study. Arrangements between the University and the entity providing the work experience are coordinated by the Office of Career Services in the Division of Student Life.

**Executive Forum, Private Enterprise Week, and Distinguished Practitioners Series**

The Executive Forum is Georgia's premier business enrichment program. Founded in 1979 as a business outreach program at Mercer and the Stetson School of Business and Economics, the Executive Forum has become an invaluable resource for the business community and professionals across corporate Georgia by presenting high-quality management and leadership speakers on timely topics. The impressive lineup of speakers has included
publisher Steve Forbes, political commentator Tim Russert, Wall Street strategist Louis Rukeyer, technology guru Jeff Levy, and financial news anchor Lou Dobbs. Students are invited to attend selected forums, and some speakers address business classes.

Also, the school sponsors a Distinguished Practitioners Series. Lectures and seminars for both students and the general public are presented. Executives and former executives from Accenture, Sunbeam, the Southern Company, Chick-Fil-A, Otis Elevator, Piggly Wiggly Southern, Flowers Industries, General Electric, Armco, Inc., Bendix, Horton Homes, and Gate Petroleum Company have appeared in recent years.

**Undergraduate Degree Requirements**

To qualify for graduation with the Bachelor of Business Administration degree, the following requirements must be satisfied:

1. A minimum of 128 semester hours of academic courses with a cumulative grade point average of at least 2.0.

2. A minimum cumulative grade point average of 2.25 in all business courses taken (to include non-business courses which count towards a managed academic path to success program of study) at Mercer or transferred from other institutions. The grades earned in MAP 101, MAP 301, MAP 305, and MAP 401 are not included in this calculation.

3. A minimum cumulative grade point average of 2.25 in the total hours taken in a managed academic path to success program of study, to include courses transferred from other institutions. The grades earned in MAP 101, MAP 301, MAP 305, and MAP 401 are not included in this calculation.

4. Completion of the general education requirements.

5. Completion of the mathematics, statistics, and computer science courses required for the degree earned.

6. Completion of the courses required in the business core.

7. Completion of the courses and any other requirements for a managed academic path to success program of study.

8. Earn a minimum of 64 semester hours of academic credit in courses other than those that are offered by the Stetson School of Business and Economics, that transfer to Mercer as business courses, that count toward the business core curriculum, or that are business courses which count toward a managed academic path to success program of study for the B.B.A. degree. For this purpose, up to nine semester hours of economics and up to six semester hours of basic statistics may count in the minimum 64 semester hours outside of business. MAP 101 counts as hours outside of business.

9. Earn a minimum of 30 semester hours from the Stetson School of Business and Economics. Students may count all economics courses taken in the Stetson School of Business and Economics toward meeting this requirement. Courses taken at another school or college of Mercer University, which meet the requirement of a business core curriculum course, will count toward meeting this minimum 30 semester-hour requirement.

10. At least 12 of the minimum 15 semester hours in the traditional course component of the managed academic path to success program of study must be taken in residence at Mercer University, of which 9 must be taken in residence in the Stetson School of Business and Economics and from business offerings.
11. Take the senior assessment examination.
12. The recommendation of the faculty.

SSBE UNDERGRADUATE HONORS PROGRAM

Mission

The honors program provides highly qualified students in the Eugene W. Stetson School of Business and Economics an opportunity to excel in an environment that is intellectually challenging and to contribute to knowledge within their disciplines. Information pertaining to the University Honors Program is found in the general Academic Information section.

In addition to the Core Requirements, Honors Program students enrolled in the Stetson School of Business and Economics must fulfill the following requirements in order to graduate with University Honors:

Great Books (GBK): Students must take GBK 101 during their fall semester freshman year.

Additional Hours: Students must take an additional twelve hours selected from the following course sequences. These courses may be taken at any time during the sophomore-senior years. Students must choose one course from at least two different sequences.

- HON 250-251 – Summer Study Abroad Trip (3 hours each)
- HON 310-311 – Interdisciplinary seminars (3 hours each)
- HON 320-321 – Service learning seminars (3 hours each)
- HON 362 – Graduate/Professional School/Internship Preparation seminar (1 hour)

Cultural Events: Students must participate in at least two Honors Program sponsored cultural events at some point during their four years at Mercer. The program will sponsor one event per semester.

Study Abroad: Students must spend either a summer or a semester studying abroad, or satisfy this requirement through travel-study courses, or other courses completed in a study-abroad context that have been approved by the Honors Program Director.

CURRICULUM

Students seeking the Bachelor of Business Administration degree must successfully complete the general education requirements, two or three mathematics courses, one computer science course, twelve business core curriculum courses, and a managed academic path to success of at least 21 hours.

General Education (40 or 45 hours)

Mercer University’s founding vision, articulated by Jesse Mercer in the 1830s, dedicates us to promote free inquiry, religious liberty, and inclusiveness-values consonant with Baptist heritage. University President William D. Underwood underscored that vision in 2006, noting that “…the extent to which a university transforms the lives of individual students, who in turn transform their communities, represents the ultimate measure of a university’s greatness.” To put this transformative vision into practice within the communities we serve, a Mercer University education emphasizes experiences that infuse intellectual growth, cultural understanding, civic responsibility, and moral discernment with practical competencies.
The distinctiveness of their programs and traditions notwithstanding, Mercer University's undergraduate colleges and schools share learning outcomes that reflect Mercer's mission to educate the whole person. These undergird the General Education Curricula, which provide the necessary foundation for disciplined study and lifelong learning.

General Education is designed to help students cultivate and refine habits of mind that prepare them to contribute constructively and meaningfully to society. To realize this goal, General Education strives to instill in persons broader perspectives while empowering them to find fuller and richer citizenship in a world in which different cultures, social institutions, and technologies intersect in multiple and diverse ways.

Four Outcomes of General Education

A Mercer education emphasizes experiences that foster intellectual growth, cultural understanding, civic responsibility, and moral discernment. These four interrelated capacities inform the intended outcomes for general education.

Intellectual growth may be interpreted to include complexity of thought, integrative and synthesizing ability, quantitative analysis, qualitative analysis, critical inquiry, critical reflection, creative expression, integration of life and learning experiences, self understanding and knowledge, and capacity for continued learning and intellectual growth.

Cultural awareness may be interpreted to include global perspective, intercultural perspective, empathy, perspective taking, engaging the other, and cultural appreciation.

Civic responsibility may be interpreted to include active responsible citizenship, the ability to engage with problems and issues, civility and respect, collaboration and working in teams, and caring.

Moral discernment may be interpreted to include judgment in ambiguous situations, academic integrity, ethical reasoning, ethical behavior, and the ability to act upon reflectively-held convictions.

These broad learning outcomes are achieved, not in the abstract, but in and through the exercise and development of certain specific practical competencies that are infused in these four outcomes of general education.

- Communicating effectively in writing in a variety of modes and settings
- Communicating effectively orally in a variety of modes and settings
- Analyzing observed natural phenomena through the use of scientific reasoning
- Reasoning quantitatively
- Integrating coherently diverse perspectives with knowledge
- Acting perceptively and responsibly in light of the education one has received

As required by the University’s accrediting body, general education programs at Mercer will constitute a minimum of 30 semester hours to include credit hours in humanities/ fine arts, social/ behavioral science, and science/mathematics.

Students seeking the B.B.A. degree must successfully complete either the Distributional General Education Program or the Great Books General Education Program. The Distributional General Education Program is described below:

1. First Year Seminar I (at least 4 hours)
   FYS 101 (4 or 5 hours)
2. First Year Seminar II (4 hours)
   FYS 102

3. Public Speaking or Writing (3 hours)
   BUS 281
   CTA 251, 256, 315, 353, 357, 358, 360
   ENG 307
   JRN 220, 232
   TCO 341

4. Literature (3 hours)
   CLA 101, 102
   CON 101, 102
   ENG 233, 234, 235, 236, 237, 263, 264, 265
   FRE 303, 304
   GER 351, 352, 353
   SPN 303, 304

5. History (3 hours)
   HIS 111, 112, 165

6. Religion (3 hours) (CHR 101 or 150 recommended)
   CHR 101, 150, 210, 335, 350, 353

7. Natural and Physical Sciences (5 hours minimum)
   1. SCI 105 (required) (3 hours)
   2. A laboratory module or a laboratory science (at least 2 hours)
      1. Modules (2 hours each, 7 weeks each)
         BIO 105, 106
         CHM 103, 104
         EES 103, 104
         PHY 101, MUS/PHY 103
         SCI 110
      2. Courses
         BIO 115, 116 (4 hours each), 211 (5 hours)
         CHM 108, 111, 112 (4 hours each), 115 (5 hours)
         EES 150 (4 hours)
         EES 105, 110, (4 hours each)
         PHY 115, PHY 141 and 121L, 161 and 121L (4 hours each)

8. Behavior Sciences, Social Sciences, and Cultural Studies (3 hours)
   ANT 201
   CTA 165, 260
   PLS 200, 210
   POL 101, 253
   PSY 101
   SOC 101, 210
   WGS 180

9. Fine Arts, Language, or Philosophy (3 hours)
   At least one course from a, b, c, or d.
   a. Fine Arts
      CTA 115, 218, 272, 337
MUS 104, 151
PHO 221

Applied Music: Voice, Piano, Organ, Band, and Orchestral Instruments

b. Philosophy
PHI 180, 190, 195, 205, 220, 240, 337
GBK 202
c. FRE, GER, GRK, LAT, or SPN 111 (4 hours each)
d. Any other fine arts, philosophy, or language course.

10. Electives (9 hours minimum):

1. FRE, GER, GRK, LAT, or SPN 112 (4 hours each)
FRE, GER, LAT, or SPN 251 (3 hours)
FRE, GER, or SPN 252 (3 hours)
GRK, LAT 300 (3 hours)

2. Choose courses from blocks 3 - 9 above or from any discipline in the College of Liberal Arts represented in blocks 3 - 9 above, provided prerequisites have been met.

3. Choose courses from the following list:
GBK 101
SCP 451, 452, 453, 454, 455, 456, 457, 458, 459

4. Any mathematics class numbered higher than MAT 191. The former MAT 226 is excluded from the option.

Commentary on Block 9 and 10

1. A foreign language competency test is available. **The placement test may be taken only once, and the results are binding.** Students who exempt only FLL 111 will not receive area credit. That is, the language sequence 111-112 must be completed or exempted to get credit toward the distributional program. Area credit does not count toward graduation.

2. Students who exempt FLL 112 on the competency test will receive area credit for four (4) hours in block 9 and four (4) hours in block 10, for a total of eight (8) hours. Area credit does not count toward graduation.

3. Students who exempt FLL 251 or a higher-level language course on the competency test will receive area credit for eleven (11) hours, four (4) in block 9 and seven (7) in block 10.

4. Students who place into and successfully complete FLL 251 or above may receive four additional hours of credit towards graduation, for the elementary sequence.

5. Students who transfer in foreign language courses that are equivalent to FLL 111, 112, or 251 at Mercer will receive appropriate transfer hours for the courses and may fulfill requirements toward blocks 9 and 10, as if they had taken (or exempted) the equivalent course(s) at Mercer.

6. Native speakers of a language other than English will receive area credit for eight (8) hours, four (4) in block 9 and four (4) in block 10.

7. Applied music credits must total a minimum of 3 hours, or multiples of 3 hours, to be counted at all in these blocks.
The Great Books General Education Program is described below:

1. First Year Seminar I (at least 4 hours)
   FYS 101 (4 or 5 hours)

2. First Year Seminar II (4 hours)
   FYS 102

3. Natural and Physical Sciences (5 hours minimum)
   a. SCI 105 (required) (3 hours)
   b. A laboratory module or a laboratory science (at least 2 hours)
      1. Modules (2 hours each, 7 weeks each)
         BIO 105, 106
         CHM 103, 104
         EES 103, 104
         PHY 101, MUS PHY 103
         SCI 110
      2. Courses
         BIO 115, 116 (4 hours each), 211 (5 hours)
         CHM 108, 111, 112 (4 hours each), 115 (5 hours)
         EES 150 (4 hours)
         EES 105, 110 (4 hours each)
         PHY 115, PHY 141 and 121L, 161 and 121L (4 hours each)

4. Foreign Language Competency (exam or 8 hours of one language)
   FRE, GER, GRK, LAT, or SPN 111-112 (4 hours each)

5. Great Books (24 hours)
   GBK 101, 202, 203, 304, 305, 306, 407, and 495

Commentary on the Foreign Language Competency Requirement

1. Students who exempt FLL 111 on the competency test will receive area credit for four (4) hours and may fulfill the requirement by taking FLL 112. Area credit does not count toward graduation.

2. Students who exempt FLL 112 or a higher-level language course on the competency test will receive area credit for eight (8) hours and have fulfilled the foreign language competency requirement.

3. Students who place into and successfully complete FLL 251 or above may receive four additional hours of credit towards graduation, for the elementary sequence.

4. Students who transfer in foreign language courses that are equivalent to FLL 111, 112, or higher-level language courses at Mercer will receive appropriate transfer hours for the courses and may fulfill the foreign language competency requirement, as specified in items 1 and 2 above.

5. Native speakers of a language other than English will receive area credit for eight (8) hours and have fulfilled the foreign language competency requirement.

Commentary on Blocks 1 and 2, Both General Education Tracks, for Transfer Students

1. Transfer students who have transfer credit for at least one year (30 semester hours) of college work may be exempted from FYS 101 and FYS 102. This policy does not apply to students with at least 30 hours of AP or CLEP credit, as one of the objec-
tives of the FYS sequence is to provide all first-year college students at Mercer/Macon with a common set of experiences.

2. All transfer students who are exempted from FYS 101 and FYS 102 must present or earn credit for two courses focusing on English composition. Students who transfer in two courses of English composition will have met the requirement in these blocks.

3. Students who do not present transfer credit for two courses of English composition must pass ENG 108 (in lieu of FYS 101) and one of the following courses (in lieu of FYS 102): ENG 233, 234, 235, 236, 237, 263, 264, or 265. The student would, in addition, need to select a literature course in Block 4 for the distributional program, unless an acceptable course were transferred in.

Comment on Transfer Courses for General Education: Courses transferred in to Mercer that meet the educational philosophy of a block may be counted in that block without having to be exactly equivalent to a course listed in the block.

A student transferring to the Stetson School of Business and Economics residential program with at least five semester hours of science, including a laboratory experience, will be considered to have fulfilled the natural and physical sciences general education requirement. Students who have less than five semester hours of laboratory science will be required to take SCI 105, a laboratory science module, or a course comprising at least two semester hours, depending on whether the transferred course included a laboratory experience.

Mathematics and Computer Science (10 to 14 hours)

Students seeking the B.B.A. degree must successfully complete the following mathematics courses and one computer science course. Normally, these courses should be completed by the end of the sophomore year, as the background they provide is essential for successful performance in many upper-division business courses. All are prerequisites for one or more courses in the school. In addition, CSC 125 should be taken before enrolling in MAT 126.

- MAT 126. Elementary Statistical Methods (3 hours),
- MAT 131. College Algebra, or
- MAT 133. Precalculus (or competency exam exemption) (4 hours)
- MAT 141. Calculus for the Social Sciences (3 hours), or
- MAT 191. Calculus I (4 hours)
- MAT 320. Introduction to Probability and Mathematical Statistics (3 hours)
- CSC 125. Introduction to Computing (3 hours)

Business Core Curriculum (36 hours)

The business core curriculum has been designed to ensure that all students receiving the B.B.A. degree will share an important common body of knowledge. This program of study provides the foundation of thinking tools needed throughout a wide range of positions of authority in business and not-for-profit organizations.

- ACC 204, 205*
- BUS 346
- BUS 349, IDM 470, or ACC 421
- BUS 342, BUS 350, ISE 402, or ISE 370
- ECN 150, 151, and any one from ECN 301, 302, 303, or 353*
*ECN 150, ECN 151, ACC 204, and ACC 205 should be completed by the end of the sophomore year.

**Managed Academic Path to Success** *(At least 21 hours)*

**Program of Study**

Each student must develop a managed academic path to success (MAPS) program of study with his/her academic advisor by the end of his/her sophomore year. The concept behind this program is that students are taken on a guided journey and discover themselves, their life aspirations, and an understanding of how these translate into a career path in business. Each MAPS requires a minimum of 21 semester hours, at least 3 of which are experiential. Courses which fulfill a general education or a business core curriculum requirement may not double-count on a MAP.

Each MAPS program of study must include:

- **MAP 301.** Beginning the Journey (2 hours)
- **MAP 401.** Making the Transition (1 hour)

Each MAPS program of study must include an experiential component involving a minimum of 3 hours of credit. Students may elect an internship or a study abroad course. Within a minimum 21-hour program of study, no more than 3 semester hours of an experiential component may count toward a MAPS program of study. MAP 305 is taken if an internship is elected.

**Traditional Course Component:** Of the remaining 15 semester hours in a minimum 21-hour program of study, at least 12 must be taken in residence at Mercer University, 9 of which must be taken in residence in the Stetson School of Business and Economics and from business offerings. For the 6 semester hours that are not required to be taken in the Stetson School of Business and Economics, students may include courses from the College of Liberal Arts, the School of Engineering, the Tift College of Education, the College of Continuing and Professional Studies, the Southern School of Pharmacy (Atlanta), and the Georgia Baptist College of Nursing (Atlanta) that fit their lifetime learning goals. Courses transferred from other four-year institutions of higher education may also be used on a MAP. If courses count on a major in any of these schools, they will count on a MAPS program of study, provided that they are numbered as a (Mercer equivalent) 200 or higher course.

**Managed Academic Path to Success**

Suggested Course Sequence

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<tr>
<th>Fall Freshman</th>
<th>Spring Freshman</th>
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<tbody>
<tr>
<td>FYS 101</td>
<td>FYS 102</td>
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<td>ECN 150</td>
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<td>MAP 101</td>
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<td>CSC 125</td>
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<td>MAT 131</td>
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<td>MAT 133</td>
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246 / MERCER UNIVERSITY
## Fall Sophomore

<table>
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<th>Course</th>
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<tbody>
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<td>ACC 204 Intro Financial Accounting</td>
<td>3 b</td>
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<tr>
<td>MAT 126 Elementary Statistics</td>
<td>3</td>
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<td>SCI 105 Scientific Inquiry</td>
<td>3 c</td>
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<tr>
<td>MGT 363 Principles of Management</td>
<td>3</td>
</tr>
<tr>
<td>XXX General Education</td>
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</tr>
</tbody>
</table>

### Spring Sophomore

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 205 Intro Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>SCI 362 Principles of Finance</td>
<td>3</td>
</tr>
<tr>
<td>XXX General Education</td>
<td>3</td>
</tr>
<tr>
<td>MAP 301 Beginning Journey</td>
<td>2</td>
</tr>
</tbody>
</table>

### Notes:
- ACC 204 may be taken in the freshman year by students who are calculus-ready when they enter the University or who earn a grade of C or higher in MAT 131 or MAT 133 in the fall semester of their freshman year.

## Fall Junior

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECN XXX Economics Elective</td>
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</tr>
<tr>
<td>BUS 350 Bus Quant Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAP #1 Course on MAP</td>
<td>3</td>
</tr>
<tr>
<td>BUS 346 Legal, Eth, Reg Env of Business I</td>
<td>3</td>
</tr>
<tr>
<td>XXX General Education</td>
<td>3</td>
</tr>
<tr>
<td>XXX General Education</td>
<td>3</td>
</tr>
</tbody>
</table>

### Spring Junior

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAP #2 Course on MAP</td>
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<tr>
<td>MAP #3 Course on MAP</td>
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</tr>
<tr>
<td>MAT 141 Calculus Soc Sci</td>
<td>3</td>
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<tr>
<td>XXX General Education</td>
<td>3</td>
</tr>
<tr>
<td>MAP 401 Making Transition</td>
<td>1</td>
</tr>
</tbody>
</table>

### Notes:
- ECN 150 and 151 may be taken in reverse order, with the approval of an advisor.
- MGT 363 and MKT 361 may be taken in reverse order, with the approval of an advisor.
- Electives may be any course, but may also be included in the MAP.

## Minors

**For Students Pursuing the B.B.A. Degree**

Minors are not available for students pursuing the B.B.A. degree. B.B.A. degree-seeking students should broaden their MAPS program of study to include courses in alternate disciplines.

**For Students Not Pursuing the B.B.A. Degree**

Minors for students not pursuing the B.B.A. degree are offered in accounting, business administration, and economics. A 2.0 grade point average is required to earn a minor. The University requires that at least six hours of upper-division work in a minor be done in-residence.
The requirements for a minor in accounting are: ACC 204, ACC 205, ACC 331, ACC 332 and one other accounting course that should be selected in consultation with an accounting faculty advisor. The following three courses are suggested: ACC 368, ACC 375, and ACC 377.

The requirements for a minor in business administration are: ECN 150 or ECN 151, ACC 204, MGT 363, MKT 361, and one other course selected from the curriculum of the school. The fifth course should be selected in consultation with a faculty member in the school. Entry into 300- or 400-level courses normally is limited to juniors and seniors.

The requirements for a minor in economics are: ECN 150, 151, MAT 126 or 320, and three other economics courses that should be selected in consultation with an economics faculty advisor.

Courses used for a student’s major may not be used toward any of these minors. This double-counting prohibition will not preclude a student from earning one of these minors under circumstances where his/her major requires that s/he broaden him/herself by taking a depth area, a minor, or professional-area electives over and above the courses required for his/her major.

COURSES OF INSTRUCTION

Courses indicated by (Atl) at the end of the description normally are offered only on the Cecil B. Day Campus in Atlanta. Courses offered in the evening program are listed in the regional academic centers’ catalog.

ACCOUNTING (ACC)

ACC 204. Introductory Financial Accounting (3 hours)
NOTE: CSC 125 or INSY 102 is recommended prior to enrolling.
A study of the basic principles and concepts relating to the collection and summarization of accounting information and the understanding, preparation, and use of the income statement, the balance sheet, and the statement of cash flows.

ACC 205. Introductory Managerial Accounting (3 hours)
Prerequisite: ACC 204.
An introductory study of the preparation and use of internal accounting information for the planning and controlling of company activities. Topics covered include internal budgeting, cost allocation, and capital budgeting.

ACC 210. Computerized Financial Accounting Procedures (3 hours)
Prerequisites: ACC 204
This class presents a concentrated study of the accounting cycle and the subsequent production of the required financial statements for a small business enterprise using a commercial accounting software package. The course focuses on the experience and hands-on knowledge needed to confidently organize, maintain, analyze and produce the financial statements of a small company.

ACC 305. Gaining Accounting Experience (3 hours)
Prerequisites: MAP 301, junior standing, and 9 or more credit hours in business.
This course is offered as an alternative to MAP 305 in course name only for students with accounting oriented MAPs who would like their accounting internship experience counted as one of the prerequisite courses needed for professional certification. To register and receive credit for ACC 305 the student must have an approved internship with accounting related duties. The course content and requirements are the same as MAP 305 (please see
ACC 305 may be repeated only with permission from the Office of the Associate Dean.

ACC 331. Intermediate Accounting I (4 hours)
Prerequisites: ACC 204 and 205.
A study of the theory and principles governing the collection and summarization of financial data for the preparation of the income statement, balance sheet, and statement of cash flows. This course will focus on the construction of financial statements, issues involving revenue recognition, and accounting for cash, receivables, inventory, property, plant, equipment, and intangible assets.

ACC 332. Intermediate Accounting II (4 hours)
Prerequisite: ACC 331.
ACC 332 is a continuation of ACC 331. This course will address current and non-current liabilities, shareholder equity, dilutive securities and earnings per share, investments, GAAP treatment of income taxes, pensions, leases, accounting changes, and disclosure requirements.

ACC 368. Corporate Financial Reporting (3 hours)
Prerequisite: ACC 204 or the equivalent.
A critical examination of accounting procedures used in the financial reporting practices of public enterprises, with emphasis on the measurement of income and the quality of reported earnings. The course explores the content of the balance sheet, the income statement, the statement of cash flows, and important relationships among the statements that impact on liquidity, solvency, and profitability. (This course may not be counted toward a major in accounting.)

ACC 375. Tax Accounting (3 hours)
Prerequisites: ACC 204 and 205.
A study of the basic principles and concepts of federal income taxation of business entities (sole proprietorships, partnerships and limited liability entities, C corporations, and S corporations). Brief coverage of federal taxation of individuals.

ACC 377. Cost Accounting (3 hours)
Prerequisites: ACC 204 and 205.
A study of the utilization of cost data in planning and controlling activities. Internal and external data are woven into the planning models. Specific areas of study are: process, job order, standard, functional relationships, and budgeting.

ACC 411. Governmental and Not-For-Profit Accounting (3 hours)
Prerequisites: ACC 204 and 205.
A study of the principles of fund accounting for and financial reporting by not-for-profit and governmental entities.

ACC 421. Accounting Information Systems (3 hours)
Prerequisites: ACC 331
The course presents an introduction to the study of computer-based accounting systems with a primary focus on basic system documentation and design. Other topics covered include information system applications, internal controls and system security, auditing procedures related to the accounting system, and accounting system applications.

ACC 431. Auditing (3 hours)
Prerequisites: ACC 331; MAT 126 or 320.
Corequisite: ACC 332 or consent of the instructor.
A study of objectives, standards, and procedures involved in examining and reporting on financial statements of business organizations by independent auditors.
ACC 436. Advanced Accounting (3 hours)
Prerequisites: ACC 331 and 332, or consent of the instructor.
A study of the theory and principles of accounting for business combinations, the preparation of consolidated financial statements, branch accounting, accounting for partnerships, accounting for international operations, and accounting for governmental and nonprofit organizations.

ACC 477. Special Topics in Accounting (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
An intensive study of some significant topic in accounting that is not otherwise covered by the school's course offerings. Topics will be chosen in consultation with students who register for the course.

ACC 478. Research in Accounting (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
A research-oriented course focusing on an important topic in accounting that is not otherwise covered by the school's offerings. The course features student research, independent study, and discussion.

ACC 494. Honors Thesis (1 hour)
Prerequisite: admission to the honors program.
Individual research leading to the completion of an honors thesis. Students admitted into the honors program register for one credit hour in each of three successive semesters (including summer). Only grades of satisfactory or unsatisfactory will be assigned.

BUSINESS (BUS)

BUS 101. First-Year Leadership Experience (FLEX) (2 hours)
This course is designed to teach leadership development theory and help first-year students become engaged with the Mercer and Macon communities. Priority registration is given to Mercer Service Scholars. This is an interactive, experiential course that depends on the involvement and participation of all participants. (Does not count toward any business major or minor.)

BUS 102. Meditation Skills for Student Leaders (2 hours)
This course is particularly relevant for students active in campus leadership and seeking to learn how best to serve their communities upon graduation. Participants will: (1) increase their understanding of conflict and the role of mediation, (2) develop skills to enhance their ability to use mediation to empower others, and (3) engage diverse groups and communities to help identify common interests and develop transformative processes of change. Priority registration is given to Mercer Service Scholars. The course will require a team-based, service-learning project. (Does not count toward any business major or minor.)

BUS 275. Students in Free Enterprise (2 hours)
Prerequisites: ECN 150 and 151 or permission of instructor.
Under the direction of the instructors, students create, research, prepare, and present projects that demonstrate how the private-ownership, free-market economic system works, as well as how individual businesses start up and operate. These projects target groups that include school children, college students, television and radio audiences, newspaper readers, Internet users, civic and professional organizations, business owners, and potential business owners.

BUS 276. Students in Free Market Economics (2 hours)
Prerequisites: ECN 150 and 151 or permission of instructor.
A continuation of BUS 275. Under the direction of the instructors, students create, research,
prepare, and present projects that demonstrate how the private-ownership, free-market economic system works, as well as how individual businesses start up and operate. These projects target groups that include school children, college students, television and radio audiences, newspaper readers, Internet users, civic and professional organizations, business owners, and potential business owners.

**BUS 281. Business Communication and Report Writing (3 hours)**
Prerequisites: FYS 101 and 102 or equivalent English composition.
Intensive instruction and practice in the organization, content, and style of business letters and reports. Letters of inquiry, refusal, persuasion, credit, and collection, as well as job application letters with resumes, sales letters, and basic forms of business reports, are studied in the course. (Students can receive credit for either BUS 270, in extended education, or BUS 281. Neither course can count as one of the minimum three business courses on a MAP.)

**BUS 318. Internship in Business (1 hour per term)**
Prerequisites: sophomore status, minimum 2.5 GPA, and 9 or more credit hours in business courses.
A practical work experience with a business or similar entity related to a student's career interest. Arrangements between the University and the entity providing the work experience will be coordinated by the Office of Career Services in the Division of Student Life. Academic credit will be granted only upon review and approval, by the dean, associate dean, or a business faculty member, of appropriate written documentation prepared and presented by the student to support the educational element of the experience. Does not count toward a managed academic path to success program of study. May be repeated once. S/U graded.

**BUS 342. Advanced Statistics for Business and Economics (3 hours)**
Prerequisites: ECN 150, 151, MAT 126 (or 320), MAT 141 (or 191), and junior status (or permission of instructor).
This course is designed to fill the need for a course in business and economic statistics and aims to combine the development of technique with applications to real business and economic analysis. The course assumes a working knowledge of introductory statistics and attempts to work carefully with more advanced statistical and econometric techniques. This course emphasizes applied fundamentals of regression analysis and other statistical techniques rather than theoretical detail.

**BUS 346. The Legal, Ethical, and Regulatory Environment of Business I (3 hours)**
Prerequisite: sophomore standing.
This course is an introduction to law and the legal system. Topics discussed include the court system, constitutional law, administrative law, contract law, torts, product liability, criminal law, business organizations, agency, and an introduction to the governmental regulations of business. The ethical and social responsibilities of business will be emphasized.

**BUS 347. The Legal, Ethical, and Regulatory Environment of Business II (3 hours)**
Prerequisite: BUS 346.
This course is a continuation of the discussion of a variety of legal topics. Particular emphasis is placed on those areas that an accounting major would find on the law part of the CPA examination: contracts, the Uniform Commercial Code, sales, commercial paper, debtor-creditor relationships and bankruptcy, business organizations, government regulation of business, and real and personal property.
BUS 349. Management Information Systems (3 hours)
Prerequisite: CSC 125 or INSY 115, ACC 204, 205, MKT 361, and MGT 363.
A study of management information systems (MIS) and the impact that MIS has on management decision making. The emphasis of this course is on data collection techniques, information flow within an organization, techniques of analysis, and design and implementation of a system.

BUS 350. Business Quantitative Analysis (3 hours)
Prerequisites: ECN 150; MAT 133 and 126 (or 320 or BUS/MATH 220).
Emphasis will be placed on the practical application of quantitative analysis as it is used in business. Specific topics to be covered include: probability, forecasting, linear regression, linear programming, critical path method, program evaluation and review techniques, decision theory, and related techniques.

BUS 413. Business Studies Abroad (Summer) (1-6 hours)
Prerequisites: ECN 441, FIN 451, and MGT/MKT 472; or consent of the instructor.
Travel to a foreign country is required. This involves visitation to corporations, factories, banks, and government organizations. Students are given a reading list and a basic book on international business as early as three months in advance of the trip and are required to attend lectures on different topics prior to the trip. A research topic will be chosen based on each student's interest or based on the itinerary presented by the coordinator of the studies abroad. Students will present their research to the class upon their return to Atlanta/Macon. Usually, faculty are invited to attend the presentations. Direct costs, such as airfare, meals, and lodging, are added to normal tuition charges.

BUS 477. Special Topics in Business (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
An intensive study of some significant topic in business that is not otherwise covered by the school's course offerings. Topics will be chosen in consultation with students who register for the course.

BUS 478. Research in Business (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
A research-oriented course focusing on an important topic in business that is not otherwise covered by the school's offerings. The course features student research, independent study, and discussion.

BUS 491. Seminar in Business and Economics (3 hours)
Prerequisite: permission of instructor.
A study of selected topics in business and economics. (Atl)

BUS 494. Honors Thesis (1 hour)
Prerequisite: admission to the honors program.
Individual research leading to the completion of an honors thesis. Students admitted into the honors program register for one credit hour in each of three successive semesters (including summer). Only grades of satisfactory or unsatisfactory will be assigned.

ECONOMICS (ECN)

ECN 150. Principles of Microeconomics (3 hours)
Prerequisite: mathematics competency or completion of a college mathematics course.
A study of the basic tools of economic analysis and the principles necessary to appreciate economic relationships, business behavior, and consumer behavior. Special emphasis will be given to the areas of supply and demand, marginal analysis, and the theory of the firm.
ECN 151. Principles of Macroeconomics  (3 hours)
Prerequisite: mathematics competency or completion of a college mathematics course.
The study and analysis of national income accounting, income determination theory, money and monetary policy, fiscal policy, international trade, and the theory of economic growth. Special attention will be given to current economic conditions and trends.

ECN 177. Special Topics  (1-6 hours)

ECN 301. Money, Credit, and Banking  (3 hours)
(Cross-listed with FIN 301)
Prerequisites: ECN 150, 151, and junior status (or consent of instructor).
A functional study of monetary, banking, and credit structures, including a critical examination of monetary theory and policy recommendations.

ECN 302. Intermediate Microeconomic Theory  (3 hours)
Prerequisites: ECN 150, 151, and junior status (or consent of instructor).
A study of price and distribution theory relevant to households, firms, and industries in perfect and imperfect competition. Theories of factor prices and general equilibrium are also examined.

ECN 303. Intermediate Macroeconomic Theory  (3 hours)
Prerequisites: ECN 150, 151, and junior status (or consent of instructor).
A study of the forces determining the level of income, employment, and prices. Monetary theory and the theory of economic fluctuations are reviewed, and public policies dealing with level-of-income and with aggregate economic welfare are examined.

ECN 353. Introduction to Econometrics  (3 hours)
Prerequisites: ECN 150, 151, MAT 126 (or 320), 141 (or 191), and junior status (or consent of instructor).
A study of the methods of empirically verifying economic theory. Statistical inference applied to economic models, both macro and micro. Estimation of single and multiple equation models. A partial listing of topics covered includes: stochastic equations, residuals, parameter estimation via least squares and other methods, the coefficient of determination, multicollinearity, serial correlation, the identification problem, and estimation of simultaneous equation macro models of the U. S. economy. (Mac)

ECN 372. American Economic History  (3 hours)
Prerequisites: ECN 150, 151, HIS 165.
A study of the institutional and structural factors that contributed to the development of the American economy. (Mac)

ECN 432. Urban and Regional Economics  (3 hours)
Prerequisites: ECN 150, 151.
A study of poverty, housing, land use, transportation, and public services, with special references to social problems arising from the uneven distribution and immobility of resources. (Mac)

ECN 436. Economics of Sports  (3 hours)
Prerequisites: ECN 150 and ECN 151
This course examines economic issues pertaining to professional and amateur sports. Microeconomic theory is extended into this area of interest. Topics covered include; the expansion of leagues; the economic impact of new stadiums; the economics of the media and sport; labor market issues of free agency; NCAA rules and collegiate sports.
ECN 437. Law and Economics  (3 hours)
Prerequisites: ECN 150 and ECN 151
This course uses the tools of microeconomics to examine the effects of different legal
rules, the efficiency of legal outcomes, and the economics of social and legal norms. The
philosophies of judicial activism and rule-based law will be compared and contrasted. The
economics of contracts, torts, property law, and antitrust law will also be explored.

ECN 438. Public Finance  (3 hours)
Prerequisites: ECN 150 and ECN 151
This course is a survey of public economics theory. Topics include social welfare, taxation,
public goods, voting efficiencies, and the role of government.

ECN 441. International Economics  (3 hours)
Prerequisites: ECN 150, 151.
A study of the theory and mechanisms of international trade and the international monetary
mechanism. Barriers to the movement of goods and services, and recent developments in
the international organizations aimed at relaxing restrictions, are also studied. Credit may
not be earned in both ECN 441 and ECN/FIN 444. (Mac)

ECN 443. Labor Economics  (3 hours)
Prerequisites: ECN 150, 151.
A study of the major labor problems of the United States and the social and economic polit-
cies affecting the labor movement. The problems of labor organization and trade unionism.
Recent and pending legislation in the states and nation. (Mac)

ECN 445. Industrial Organization  (3 hours)
Prerequisites: ECN 150, 151.
A study of industrial organization and government regulation of business enterprises; mar-
et structures, conduct, and performance; antitrust regulation. (Mac)

ECN 448. Seminar in Economic Growth  (3 hours)
Prerequisites: ECN 150, 151.
A seminar in economic growth. Areas of emphasis are as follows: nature of growth; what is
not growth; importance of growth; the physical environment issue; growth over time and
among nations; sources of growth; theories of growth and supporting empirical evidence;
interaction of growth with economic stability and income distribution; and institutional, mon-
etary, and fiscal policies related to growth. (Mac)

ECN 452. Environmental Economics  (3 hours)
(Same as EES 452)
Prerequisites: ECN 150, 151.
An examination of the interrelationship that exists between the physical environment and the
economic system. Models of general equilibrium analysis, welfare economics, and proper-
ty rights are developed; these are supplemented by readings from scholarly journals.
Emphasis is placed upon the ability of free markets to allocate scarce environmental
resources efficiently (including intertemporally) among competing uses. (Mac)

ECN 477. Special Topics in Economics (Subtitle)  (1-3 hours)
Prerequisites: ECN 150, 151.
An intensive study of some significant topic in economics that is not otherwise covered by
the school's course offerings. Topics will be chosen in consultation with students who regis-
ter for the course.

ECN 478. Research in Economics (Subtitle)  (1-3 hours)
Prerequisites: ECN 150, 151, one ECN course numbered 300 or higher; or permission of
instructor.

254 / MERCER UNIVERSITY
A research-oriented course focusing on an important topic in economics that is not otherwise covered by the school’s offerings. The course features student research, independent study, and discussion.

**ECN 494. Honors Thesis** (1 hour)
Prerequisite: admission to the honors program.
Individual research leading to the completion of an honors thesis. Students admitted into the honors program register for one credit hour in each of three successive semesters (including summer). Only grades of satisfactory or unsatisfactory will be assigned.

**FINANCE (FIN)**

**FIN 301. Money, Credit, and Banking** (3 hours)
(*Cross-listed with ECN 301*)
Prerequisites: ECN 150, 151, and junior status (or consent of instructor).
A functional study of monetary, banking, and credit structures, including a critical examination of monetary theory and policy recommendations.

**FIN 362. Principles of Finance** (3 hours)
Prerequisites: ECN 150, ACC 204, and MAT 133.
The course is taught from the viewpoint of a corporate financial manager trying to maximize stockholder wealth. Topics covered include corporate taxation, time-value of money, risk and rates of return, funds flow, working capital management, capital budgeting, cost of capital, and dividend policy. Lecture and problems.

**FIN 404. Investments** (3 hours)
Prerequisites: FIN 362; and MAT 126 (or 320) or BUS 220.
The purpose of the course is to evaluate the various financial investments that are available to the investor and to emphasize the risk-return trade off. Topics covered include stock and bond analysis, securities markets, futures contracts, option contracts, efficient market hypothesis, fundamental analysis, and technical analysis. Lecture and problems.

**FIN 408. Financial Analysis** (3 hours)
Prerequisites: FIN 362; and MAT 126 (or 320) or BUS 220.
An in-depth analysis of the application of financial tools and concepts to the problems of large corporations; emphasis on the process of decision-making as it applies to an organization’s requirements for funds and its management of those funds. Extensive case analysis required.

**FIN 451. International Finance** (3 hours)
Prerequisites: ECN 150 and 151; FIN 362; and MAT 126 (or 320) or BUS 220.
This course will introduce students to the principles of international finance. Some of the fundamental concepts of corporate finance, as learned in the first finance course, will be applied to a global setting. Moreover, students will be exposed to the mechanics of the international monetary system and foreign exchange rates. Credit may not be earned in both FIN 451 and ECN/FIN 444.

**FIN 461. Security Analysis** (3 hours)
Prerequisites: FIN 362; MAT 126 (or 320), and 141 (or 191) or BUS 220.
Topics covered are selected from: the fundamental common stock selection process, fundamental analysis, cash flow, earnings quality, mergers and buyouts, security valuation, financial forecasting, the efficient market hypothesis, and linear programming methods of portfolio optimization.
FIN 463. Intermediate Finance (3 hours)
Prerequisites: FIN 362; and MAT 126 (or 320) or BUS 220.
A continuation of FIN 362. A study of long-term financing and capital structure decisions and short-term financial planning and working capital management. Additional topics include mergers and acquisitions and international finance.

FIN 465. Financial Institutions (3 hours)
Prerequisite: FIN 362.
The course will focus on the role of various financial intermediaries and their roles in channeling savings into productive investments. Emphasis will be placed on the study of such institutions as banks, savings and loan associations, credit unions, and insurance companies.

FIN 471. Mergers and Acquisitions (3 hours)
Prerequisites: ECN 150; FIN 362; ECN 302 (recommended).
This course will provide an introduction and an overview of mergers and acquisitions. In today's world of aggressive and strategic corporate policy-making, this course will not only provide a theoretical framework to prospective business leaders, but will also enable them to cope with some of the real problems of mergers and acquisitions with a greater degree of confidence. Some of the topics to be covered in this course include: motives and determination of mergers; merger tactics; leveraged buyouts (LBOs); divestitures; safeguards against corporate raiders and junk bonds; and the various theories of mergers.

FIN 477. Special Topics in Finance (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
An intensive study of some significant topic in finance that is not otherwise covered in the school's course offerings. Topics will be chosen in consultation with students who register for the course.

FIN 478. Research in Finance (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
A research-oriented course focusing on an important topic in finance that is not otherwise covered in the school's offerings. The course features student research, independent study, and discussion.

FIN 494. Honors Thesis (1 hour)
Prerequisite: admission to the honors program.
Individual research leading to the completion of an honors thesis. Students admitted into the honors program register for one credit hour in each of three successive semesters (including summer). Only grades of satisfactory or unsatisfactory will be assigned.

MANAGED ACADEMIC PATH TO SUCCESS (MAP)

MAP 101. The Freshman Business Experience (1 hour)
Prerequisite: open only to first-semester freshmen in SSBE.
The goal of this course is to prepare business students for the journey ahead. It introduces students to the structure of higher education and to specific Mercer policies. Issues such as successful study skills, cultural diversity, critical thinking, ethics, personal relationships, health, and safety are introduced and discussed. It will also orient students to MAPS and acquaint them with the resources in SSBE. Students are evaluated on a letter-graded basis. May not be repeated.
MAP 301. Beginning the Journey (2 hours)
Prerequisites: ACC 204 and ECN 150 or 151.
Prerequisites or co-requisites: at least two of FIN 362, MGT 363, or MKT 361, or junior standing.
This course develops a student's awareness of himself or herself and business. This is accomplished through assessment vehicles, business resource guides, and interaction with business professionals. In addition to the development of short- and long-term life goals, this course begins building the foundations to the managed academic path to success program of study. This course, limited to business students, is generally taken during the sophomore year.

MAP 305. Gaining Experience (3 hours)
Prerequisites: MAP 301, junior standing, and 9 or more credit hours in business.
This course is designed to support a student as he or she gains real-world exposure by means of reading, discussion, and practical work experience. The student will be involved in an internship or co-op directly related to his or her current or expected postgraduate employment, thus creating opportunities for examining the fit between personal gifts, desires, and expectations and the realities of the workplace. Students will examine ways in which one's work may become a meaningful experience. It is recommended that this course be taken in the second semester of the junior year or the first semester of the senior year. MAP 305 may be repeated only with permission from the Office of the Associate Dean.

MAP 401. Making the Transition (1 hour)
Prerequisite: MAP 301 and junior standing.
This course helps a student transition from academia to business. Resume preparation, job search, and the school-to-career (or school-to-graduate school) transition are general issues that will be addressed. This course, limited to business students, is taken during the junior or senior year.

MANAGEMENT (MGT)

MGT 250. CEO Leadership Series (1 hour)
Lectures by and meetings with chief executive officers of local business and not-for-profit entities. Speakers will vary from year to year. Written report required. Does not count toward any major or minor. Letter-graded.

MGT 251. Quality and Leadership (1 hour)
Same as MGT 250, with different speakers. Does not count toward any major or minor. Letter-graded.

MGT 363. Principles of Management (3 hours)
Prerequisite: sophomore standing.
Coordinating of organizational activities through planning, organizing, staffing, executing, and controlling functions. Behavior theory, delegation, communication, decision-making. Lecture, discussion, and cases.

MGT 382. Production/Operations Management (3 hours)
Prerequisites: MGT 363, MAT 133 or MATH 130, and BUS 220 or MAT 126 (or 320).
In this course, students will analyze production and service operation systems and their relationships with all other functions and activities in an organization. Deterministic and probabilistic models will be used to support decision making.
MGT 422. Business and Society (3 hours)
Prerequisite: MGT 363.
A study of the issues, philosophies, and roles that face business in American society. Topics covered include ethics, personal conscience, values, advertising, competition, ecology, social change, employment practices, product and occupational safety, job satisfaction, and government policy. The topics are related to management styles, principles, and practices.

MGT 423. Organizational Behavior (3 hours)
Prerequisite: MGT 363.
A study of human behavior in formal organizations. Specific topics covered include: variations in individual behavior, perception, motivation and job satisfaction, job design, group and intergroup dynamics, leadership, communications processes, conflict, organizational culture, stress, and organization development.

MGT 424. Organization Theory (3 hours)
Prerequisite: MGT 363.
A study of formal organizations as social instruments. Lectures, discussions, and cases dealing with business organizations, as well as “not-for-profit” organizations. Topics covered include: organization structure, effects of structure, goals and effectiveness, size, growth, and the effects of environment and technology on organizational processes.

MGT 427. Entrepreneurship (3 hours)
Prerequisites: MGT 363, MKT 361.
An entrepreneur is someone who undertakes a venture, organizes it, raises capital to finance it, and assumes all or a major portion of the risk. This course typically covers profiles of entrepreneurs, means of going into business, venture opportunities, and the financial aspects of becoming an entrepreneur. Extensive case studies and projects are required. Each student also develops a business plan.

MGT 428. Leadership (3 hours)
Prerequisite: MGT 363
This course presents a study of the theory and practice of leadership, particularly as it applies to concepts that deal with social interaction and interpersonal behavior and how the manager influences others through leadership. Examples of real and fictional leaders are discussed.

MGT 429. Human Resource Management (3 hours)
Prerequisite: MGT 363; MGT 423 recommended.
A study of the modern personnel function. The assumption will be made that the personnel/human resource department has the responsibility of developing the human resources of organizations. Topics covered include: recruitment, employee selection, training, performance appraisal, wage and salary administration, employee benefits, safety management, and collective bargaining.

MGT 433. Labor-Management Relations (3 hours)
Prerequisite: MGT 363.
Examination of the historical development and current status of collective bargaining; identification of the role of the three actors (labor, management, and government) in the practice of collective bargaining; study of the impact of recent institutional, legislative, and economic developments on labor-management relations. (Atl)

MGT 434. Management Evolution and Trends (3 hours)
Prerequisite: MGT 363.
A chronological development of the major contributions to management thought and tenets. Special attention is given to making students aware of the reasons most management prac-
tics and special techniques are utilized. A wide range of readings is used to expose each student to the contributions of other sciences and disciplines to the field of management.

MGT 450. Total Quality Management (3 hours)
Prerequisite: MGT 363.
This course explores the principles, tools, and issues relating to total quality management. Students learn the foundations of total quality based on the teachings of Deming, Juran, and others. The basic tools and techniques for quality improvement, as well as quality design, are explored, as well as the principles of customer focus, teamwork, empowerment, leadership, and incorporating quality into the strategic process as a competitive tool. A comprehensive project enables each student to apply the concepts learned in class to a real setting. The goal is to study and improve a process within an organization to increase quality, productivity, and customer satisfaction and to reduce costs.

MGT 472. International Management and Marketing (3 hours)
(Cross-listed with MKT 472)
Prerequisites: MGT 363 and MKT 361.
Study, at an advanced level, of the major marketing and management issues and opportunities facing business managers in an international setting. Primary emphasis is on the study of developing and adjusting strategies, in light of home and host countries' incentives and restrictions, to meet corporate objectives. Discussions, cases, current literature.

MGT 477. Special Topics in Management (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
An intensive study of some significant topic in management that is not otherwise covered by the school's course offerings. Topics will be chosen in consultation with students who register for the course.

MGT 478. Research in Management (Subtitle) (1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
A research-oriented course focusing on an important topic in management that is not otherwise covered by the school's offerings. The course features student research, independent study, and discussions.

MGT 494. Honors Thesis (1 hour)
Prerequisite: admission to the honors program.
Individual research leading to the completion of an honors thesis. Students admitted into the honors program register for one credit hour in each of three successive semesters (including summer). Only grades of satisfactory or unsatisfactory will be assigned.

MGT 498. Strategic Management and Business Policy (3 hours)
Prerequisites: ACC 204, 205; BUS 346; ECN 150, 151; FIN 362; MGT 363; MKT 361; and senior standing.
The problems of business organizations from the point-of-view of the chief executive officer. Written analysis of in-depth cases that require each student to view decisions in terms of their impact on the total organization. Oral discussion and conceptual skills are also stressed.

MGT 499. Management Simulation (3 hours)
Prerequisite: completion of the entire business core.
Management simulation through the use of a computer game. Students are divided into teams, for decision-making purposes, and compete with other teams in the playing of the game. Students learn to use quantitative tools to make management decisions in a simulated business environment. Specific tools discussed are: (1) linear regression, (2) EOQ mod-
els, (3) linear programming, and (4) capital budgeting. Discussion of Break-even Analysis and Critical Path and PERT Programming is also included. Ordinarily taken late in the senior year. (Atl)

MARKETING (MKT)

MKT 361. Principles of Marketing (3 hours)
Prerequisite: sophomore standing.
Role of the marketing function in planning and implementing objectives of the firm. Consumer markets, industrial markets, channels of distribution, product and pricing policies, sales forecasting, promotion, and control.

MKT 415. Marketing Research (3 hours)
Prerequisites: MKT 361; MAT 126 (or 320).
A study of the methods and procedures designed to provide management with information on decisions made. The gathering and analysis of data in business and public organizations are primary emphases. Topics include the use of secondary data, and appropriate sampling and research methodologies for collecting primary data.

MKT 417. Advertising (3 hours)
Prerequisite: MKT 361 or consent of instructor.
The course surveys the nature, procedure, practices, and results of advertising, from a marketing perspective. It focuses on the formulation of advertising strategies and includes discussions of the adjustments required for global advertising, the use of research to develop and evaluate advertising, creative strategy, and media planning and selection. Economic, social, and ethical aspects of advertising are also discussed.

MKT 420. Professional Selling (3 hours)
Prerequisite: MKT 361.
This course helps students develop an understanding of the personal selling process and its role within the marketing and promotional mix of a firm. Basic sales concepts that are used by organizations to develop long-term partnerships with customers are examined. Personal selling skills are enhanced through discussions, role playing, and sales presentations.

MKT 435. Marketing Promotion and Communication (3 hours)
Prerequisite: MKT 361.
Integration course for students interested in promotion and marketing communication. Designed to familiarize students with the tools necessary for the development, implementation, and management of promotional programs. The course takes an integrated marketing communication perspective and emphasizes management and coordination of the elements of the promotional mix, namely implicit promotion, advertising, personal selling, publicity, and sales promotion. The course includes discussions of both theoretical and practical aspects of effective marketing communications, as well as economic, social, and ethical aspects of promotion.

MKT 442. Consumer Behavior (3 hours)
Prerequisite: MKT 361.
Includes study of consumer motives, attitudes, expectations, and behavior, and their relationships to developing effective marketing programs.

MKT 472. International Management and Marketing (3 hours)
(Cross-listed with MGT 472)
Prerequisites: MGT 363 and MKT 361.
Study, at an advanced level, of the major marketing and management issues and opportunities facing business managers in an international setting. Primary emphasis is on the study of developing and adjusting strategies, in light of home and host countries' incentives and restrictions, to meet corporate objectives. Discussions, cases, current literature.

**MKT 475. Marketing Management**  
(3 hours)
Prerequisites: MKT 361 and 415; MGT 363; MAT 126 (or 320) and 141 (or 191); and senior standing.

Study, at an advanced level, of the major issues and problem areas facing marketing executives with emphasis at the policy-setting level. Public and non-profit organizations will be included in the discussions, with strong consideration of the consumer, legal, economic, and political environments and their impacts on decision-making. In-depth cases, discussion, and lectures.

**MKT 477. Special Topics in Marketing (Subtitle)**  
(1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
An intensive study of some significant topic in marketing that is not otherwise covered by the school's course offerings. Topics will be chosen in consultation with students who register for the course.

**MKT 478. Research in Marketing (Subtitle)**  
(1-3 hours)
Prerequisites: junior or senior standing and the consent of the instructor.
A research-oriented course focusing on an important topic in marketing that is not otherwise covered by the school's offerings. The course features student research, independent study, and discussion.

**MKT 494. Honors Thesis**  
(1 hour)
Prerequisite: admission to the honors program.
Individual research leading to the completion of an honors thesis. Students admitted into the honors program register for one credit hour in each of three successive semesters (including summer). Only grades of satisfactory or unsatisfactory will be assigned.
The School of Engineering

Michael S. Leonard, Ph.D., P.E., Interim Dean/Professor
Aaron S. Collins, Ph.D., P.E., Interim Senior Associate Dean/Professor
Marjorie T. Davis, George F. Hayhoe, Behnam Kamali, Richard O. Mines, Jr., Philip D. Olivier,
Clayton R. Paul and Ramachandran Radharamanan, Professors
Kevin D. Barnett, Andre J. Butler, Joan M. Burtner, Susan Codone, Donald U. Ekong, Helen
M. Grady, Hodge Jenkins Jeng-Nan Juang, Richard K. Kunz, Laura W. Lackey, Paul E.
MacNeil, Jack M. Mahaney, David M. McClellan, Philip T. McCreanor, Laura E. Moody,
William M. Moses, Edward M. O’Brien, Scott Schultz, and Loren B. Sumner, Associate
Professors
Monika Bubacz, T. Anthony Choi, Sinjae Hyun, and Ha Van Vo, Assistant Professors

An engineer takes the discoveries of the scientist, the tools of the mathematician, and
the imagination of the inventor and transforms them into goods, services, and information
to satisfy human needs. The purpose of Mercer University’s School of Engineering is to edu-
cate a student who is prepared to be a practicing engineer, one who can responsibly con-
tribute to a global society that is becoming ever more dependent on technology.

The engineering program of study includes a solid foundation in mathematics and sci-
ences along with a broad range of courses in engineering topics. The program culminates
in engineering design courses in which a student explores solutions to recognized needs as
a member of a team, since so much of modern engineering is a team effort. Engineering
courses place emphasis on the written and spoken word; enabling graduates to effectively
communicate their ideas to both technical and non-technical audiences. Because the com-
puter is such an essential tool for analysis, the courses integrate computer methods of prob-
lem-solving. Within the engineering curriculum are the general education requirements
which promote social, cultural, and global awareness, and draw on Mercer University’s dis-
tinguished Judaeo-Christian ethical value structure. All of this contributes to the develop-
ment of a practicing engineer who is a responsible contributor to the global society.

While the focus of the engineering school is to educate engineers, its graduates may
enter many fields of graduate study, especially those requiring the disciplined problem solv-
ing methods developed in the undergraduate engineering curriculum. Mercer School of
Engineering graduates have entered professional graduate programs in medicine, law, and
business, as well as graduate engineering programs. The Mercer Bachelor of Science in
Engineering (BSE) program is accredited by the Engineering Accreditation Commission of
ABET, Inc.

In addition to the specializations that lead to a Bachelor of Science in Engineering, the
School of Engineering offers two Bachelor of Science (BS) degree programs. The Bachelor
of Science in Industrial Management focuses on applying selected engineering tools to
management decisions. The Bachelor of Science in Technical Communication provides a
foundation in sciences, mathematics and technology with a strong emphasis on communi-
cation skills. Both of the BS programs are intended to provide a technical, scientific, and
analytical foundation so the graduate can pursue engineering-related careers that require
some engineering-like expertise. The programs are a mutual effort between the School of
Engineering, the College of Liberal Arts, and the Stetson School of Business.

The faculty within the engineering school is dedicated to staying abreast of the latest
developments and conveying that current practice to the students in a supportive environ-
ment. Each student is encouraged and expected to draw on faculty assistance for knowl-
edge, motivation, value clarification, and transition to the world of engineering.
Mercer University General Education

Mercer University’s founding vision, articulated by Jesse Mercer in the 1830s, dedicates us to promote free inquiry, religious liberty, and inclusiveness—values consonant with Baptist heritage. University President William D. Underwood underscored that vision in 2006, noting that “…the extent to which a university transforms the lives of individual students, who in turn transform their communities, represents the ultimate measure of a university’s greatness.” To put this transformative vision into practice within the communities we serve, a Mercer University education emphasizes experiences that infuse intellectual growth, cultural understanding, civic responsibility, and moral discernment with practical competencies.

The distinctiveness of their programs and traditions notwithstanding, Mercer University’s undergraduate colleges and schools share learning outcomes that reflect Mercer’s mission to educate the whole person. These undergird the General Education Curricula, which provide the necessary foundation for disciplined study and lifelong learning.

General Education is designed to help students cultivate and refine habits of mind that prepare them to contribute constructively and meaningfully to society. To realize this goal, General Education strives to instill in persons broader perspectives while empowering them to find fuller and richer citizenship in a world in which different cultures, social institutions, and technologies intersect in multiple and diverse ways.

Four Outcomes of General Education

A Mercer education emphasizes experiences that foster intellectual growth, cultural understanding, civic responsibility, and moral discernment. These four interrelated capacities inform the intended outcomes for general education.

Intellectual growth may be interpreted to include complexity of thought, integrative and synthesizing ability, quantitative analysis, qualitative analysis, critical inquiry, critical reflection, creative expression, integration of life and learning experiences, self understanding and knowledge, and capacity for continued learning and intellectual growth.

Cultural awareness may be interpreted to include global perspective, intercultural perspective, empathy, perspective taking, engaging the other, and cultural appreciation.

Civic responsibility may be interpreted to include active responsible citizenship, the ability to engage with problems and issues, civility and respect, collaboration and working in teams, and caring.

Moral discernment may be interpreted to include judgment in ambiguous situations, academic integrity, ethical reasoning, ethical behavior, and the ability to act upon reflectively-held convictions.

These broad learning outcomes are achieved, not in the abstract, but in and through the exercise and development of certain specific practical competencies that are infused in these four outcomes of general education.

- Communicating effectively in writing in a variety of modes and settings
- Communicating effectively orally in a variety of modes and settings
- Analyzing observed natural phenomena through the use of scientific reasoning
- Reasoning quantitatively
- Integrating coherently diverse perspectives with knowledge
- Acting perceptively and responsibly in light of the education one has received

264 / MERCER UNIVERSITY
As required by the University’s accrediting body, general education programs at Mercer will constitute a minimum of 30 semester hours to include credit hours in humanities/ fine arts, social/ behavioral science, and science/mathematics.

**National Engineering Advisory Board**

The National Engineering Advisory Board, established in 1986, supports the School of Engineering in the offering of high-quality engineering education at the undergraduate and graduate levels; the offering of research opportunities appropriate to the needs of the School, the University, industry and society in general; promoting faculty development as a means to achieve national prominence as a quality educational institution; obtaining financial support from corporate and other sources throughout the nation; and serving the educational, technical, and consulting needs of local industry.

Members of the Board include: Chairman: Dr. Dan D. Nale, Gulfstream Aerospace Corporation. Ms. Karen A. Albrecht, Lockheed Martin Aeronautics Company; Mr. G. Holmes Bell, IV, Hussey, Gay, Bell & DeYoung, Inc.; Mr. James L. Bond, Public Service Telephone Co.; Mr. Malcolm S. Burgess, Jr., Burgess Pigment Company; Mr. Peter Bryant, Mercer Engineering Research Center; The Honorable Saxby Chambliss, United States Senate; Mr. Eugene Dunwody, Dunwody, Beeland Architects, Inc.; Mr. A.V. Elliott, Elliott Machine Shop; Mr. Ernest Gay, Imerys Pigments and Additives Group; Mr. Stephen E. Giles, Milliken & Company; Mr. Arthur L. Grady, Northrop Grumman Corporation (Retired); Mr. Brian C. Highley, Avail Medical Products; Dr. Carmen M. Kavali, Kavali Plastic Surgery; Mr. Joseph F. Ketterbaugh, B. Braun Medical; Mr. John Krawczuk, BAE Systems Platform Solutions Interital Products; Mr. Melvin Kruger, L.E. Schwartz & Son, Inc.; Mr. L. Donald LaTorre, L & G Management Consultants; Mr. Reed D. Morren, The Boeing Company; Mr. Chris R. Sheridan, Jr., Chris R. Sheridan & Company; Mr. Scott E. Waters; American Ironhorse Motorcycle Company; Mr. Thomas J. Wicker, Georgia Power Company, and Mr. Tom Wilkason, Raytheon.

**Mercer Engineering Research Center**

The Mercer Engineering Research Center, established by Mercer University in 1987, is closely affiliated with the School of Engineering with the mutual benefit of the two units through the conduct of research and development activities. The Mercer Engineering Research Center maintains a staff of research scientists, engineers, analysts and support personnel to conduct fundamental and applied research and development in engineering. The center provides advanced engineering and computational services, and disseminates the results through products and services delivered to the customer, publications, training courses and conferences. These activities are conducted with support and sponsorship of the federal government (civilian and military agencies), state and local governments and private, commercial, or philanthropic organizations and institutions. They include design, analysis, testing and other services relating to the support of the research and development activities.

MERC operates out of its research facility located in Warner Robins, Georgia and employs a core group of approximately 100 research engineers and scientists.
Degree Programs

Undergraduate

BACHELOR OF SCIENCE IN ENGINEERING
Specializations:
- Biomedical
- Computer
- Electrical
- Environmental
- Industrial
- Mechanical

BACHELOR OF SCIENCE
Majors:
- Industrial Management
- Technical Communication

Minor
Technical Communication

Graduate

MASTER OF SCIENCE IN ENGINEERING
Majors:
- Biomedical Engineering
- Computer Engineering
- Electrical Engineering
- Engineering Management
- Mechanical Engineering
- Software Engineering

MASTER OF SCIENCE
Majors:
- Software Systems
- Technical Communication Management
- Technical Management

Advanced Placement
Advanced placement and CLEP credits for appropriate courses which satisfy University criteria may be included in the BSE degree.

Transfer Credit
Students who transfer into the School of Engineering must have a minimum of 2.5 GPA in all college enrollments. In addition, students must also have a 2.5 GPA or higher in all college mathematics, science, and engineering courses (excluding developmental mathematics courses). They must also be in good standing—that is, not on warning, probation, suspension, or equivalent. The School of Engineering will consider transfer students at any stage in their education; however, it is recommended that prospective transfer students follow a pre-engineering course of study if available at their institution. The core of any pre-engineering course of study includes: mathematics (i.e., calculus through differential equations); laboratory based chemistry; and calculus based physics with laboratory. While all legitimate transfer credits are accepted, students must meet the degree requirements
established by the School of Engineering. Any additional hours will be reflected on a student's transcript as general electives.

**Full Admission for Transfer Students to the BSE Degree Program**

Transfer students who seek full admission to the School of Engineering BSE degree program must satisfy the following conditions:

1) Have a minimum of a 2.5 GPA in all college enrollments;

2) Have a 2.5 GPA or higher in all degree relevant college math, science and engineering courses attempted. Courses are considered degree relevant only if they could be used (were an appropriate grade earned) to satisfy degree requirements in the specialization or program to which the student is seeking transfer admission. For the purpose of this computation, all attempts or individual courses are included.

3) Have completed courses, which transfer as CHM 111, PHY 161/PHY 121L, MAT 191, and MAT 192.

4) Be in good standing at their previous school—that is, not on warning, probation, suspension, or the equivalent.

**Conditional Admission for Transfer Students to the BSE Degree Program**

Students who have completed a course which transfers as MAT 133 and have not yet completed CHM 111, PHY 161/PHY 121L, MAT 191, and/or MAT 192, but who are otherwise eligible, may be granted conditional admission to the School of Engineering BSE degree program. Full admission will not be granted until these courses have been completed satisfactorily. Students who are granted conditional admission to the School of Engineering will have their academic performance evaluated at the end of each semester by the Scholarship and Academic Standards Committee of the School of Engineering. Students who have not earned a term average of at least 2.0 in any given semester during this period will be suspended from the School of Engineering. Students conditionally admitted will remain in this status until the four indicated courses are completed with a composite GPA of 2.5 or better (including repeated courses). Students have one calendar year from first admission to the School to satisfy these requirements. In addition:

1) Students must also have an overall GPA of 2.5 or better in all degree relevant courses attempted during the period of the conditional admission.

2) Students must satisfy the general academic standards of the University and/or the School of Engineering.

Students unable to satisfy the requirements of the conditional admission will be suspended from the School of Engineering.

**Credit by Examination**

Students who have completed course work or other training that cannot be accepted as transfer credit for a School of Engineering course may elect to receive credit by examination. This can be done by passing a comprehensive test prepared and administered by a School of Engineering faculty member who has recently taught the course. A fee is charged for taking the examination, and there must be sufficient evidence that a passing grade will be achieved before the examination will be given.
**English Requirement**

Any student whose written or spoken English in any course is unsatisfactory may be reported by the instructor of that course to the Dean of the School of Engineering. The Dean may choose to assign supplementary work, including additional course work, consistent with the needs of the student. The granting of a degree may be delayed until the work assigned is satisfactorily completed.

**Credit Hours**

The number of credit hours awarded for a course is based on the number of lecture and laboratory hours per week. The School of Engineering has defined a unit of credit for programs under its jurisdiction. An hour of work is the equivalent of 50 minutes of class time (often called a “contact hour”) or its equivalent in other forms of instruction. The normal semester is 15 weeks in length.

**Satisfactory - Unsatisfactory Grading Option**

Students seeking degrees from the School of Engineering are not permitted to take courses on a Satisfactory - Unsatisfactory basis for credit toward graduation unless the course is only offered on an S-U basis.

**Academic Requirements**

A baccalaureate degree will be awarded to those students in good academic standing who successfully satisfy the academic requirements of the University and the School of Engineering, and who have adhered to the standards of conduct generally applicable to the engineering or related profession.

**Dean’s List**

Criteria for achieving dean’s list status are listed in the Academic Information section of this catalog.

**Engineering Honors Program**

The Engineering Honors Program provides exceptional students a program of study that presents challenges beyond the normal requirements for an undergraduate degree in the School of Engineering. The goals of the Engineering Honors Program are to: (1) provide a common freshman experience that challenges the students and faculty members both technically and non-technically, and (2) provide a project experience that demonstrates knowledge and skills that exceed normal undergraduate requirements. Students are admitted to the Program by application and invitation.

The Engineering Honor's Program is a part of Mercer University's Honors Program which seeks to enrich the learning environment for both students and faculty members. By doing so, it invites new and higher levels of excellence in student research and creative accomplishments. It particularly works to foster a sense of academic community among faculty members and students of outstanding ability through its cultural events, its sponsored activities, and its four-year, interdisciplinary course of study.

All engineering honors students must: (1) participate in a weekly one hour credit Engineering Honors Seminar, (2) complete a total of eight honors seminar credits, (3) maintain a cumulative grade point average of at least 3.3, (4) complete an approved honors project in addition to the undergraduate degree requirements, (5) provide a poster session honors project progress report for the project each year, and (6) complete an approved final
project report at the conclusion of the honors project. Students who fall below 3.3 will be allowed to continue in the Engineering Honors Program for one semester.

Engineering honors students are encouraged to include one term of study or work experience preferably outside the United States that complements the required program of study and the honors project. This may be part of a study abroad experience provided to all qualifying Mercer University undergraduate students and may be fulfilled during a summer or May-term.

**Academic Warning, Probation, and Suspension**

To implement the University requirements for academic warning, probation, and suspension, the School of Engineering has adopted the following provisions to assure engineering students who experience difficulty will receive prompt attention.

1. **Warning**
   A student may be placed on academic warning if his or her term grade point average is below 2.0. A student who is on academic warning may be returned to academic good standing by achieving a term grade average of 2.0 or greater and an accumulative grade point average of 2.0 or greater.

2. **Probation**
   A student will be placed on academic probation if his or her term grade point average is below 1.0 or the cumulative grade point average is below the minimum University requirement. A student who is on academic warning will be placed on academic probation if his or her term grade point average is below 2.0.
   A student who is on academic probation may have conditions imposed on him or her as a requirement to return to academic good standing. A student who is on academic probation cannot be returned to good standing until a term grade point average and a cumulative grade point average of 2.0 or greater are both achieved.

3. **Suspension**
   A student who is on academic probation may be suspended if his or her term grade point average is below 2.0. Any full-time student who fails to pass a minimum of three hours in any term will be subject to academic suspension. Additionally, students who have demonstrated an inability to complete the special academic requirements of their chosen program of study may be suspended.
   Normally a student who is suspended is not readmitted. A request for readmission will be considered only after one or more terms of no enrollment in Mercer School of Engineering courses. Readmission will be granted only with specific conditions imposed by the Academic Standards Committee.

**Second Specializations, Majors and Minors**

Students who pursue the B.S.E. degree may earn a second major or a minor in programs offered through the College of Liberal Arts. A second major in business, through the Stetson School of Business and Economics, may be earned only by completing all of the requirements for a second degree, the B.B.A. degree, including the general education requirements. Minors for non-business students are offered in accounting, business administration, and economics by the Stetson School of Business and Economics. A student must officially declare the second major, degree, or minor, and follow proper University procedures, which call for fulfilling the specific course requirements for the second major, degree, or minor, plus additional requirements that may be arranged on an individual basis.
Students wishing to earn a second major or degree must request or seek a second advisor from that department, who will serve in addition to their primary engineering advisor.

Engineering students may pursue two specializations simultaneously. To do this, a student must officially declare each specialization, be assigned an advisor from each specialization, and complete all the requirements of each specialization. Second specializations and minors will be noted on permanent records. Second specializations will be noted on diplomas.

Within the School of Engineering, minors are offered to all qualified university students in technical communication.

Student Work Experiences

Students working toward degrees in engineering may qualify for work-learning experiences. Through industrial experience, students combine work in the classroom with practical experience in industry, business, or government. The School of Engineering encourages students to view the employment phases of the program, not as mere practice, but rather as a complementary part of the educational process. Through industrial opportunities, students experience practical application for at least one academic semester. While formally enrolled in a work experience, students are considered as being enrolled full-time.

In order to receive academic credit for work experience, students will submit periodic reports on their work experiences as related to their engineering studies. These reports will be evaluated by the students’ employers and faculty advisors who will assign a grade at the end of each work period. Students who receive a satisfactory grade for three semesters (or three periods of work experience which include at least 400 hours on the job in each work period) will receive the Industrial Experience Certificate upon graduation.

Work assignments exist, or can be developed, in every area of study within the School of Engineering. Assignments are available nationwide. Through diversified types of employment, students acquire a wide range of experience in fields related to their specializations. The level of responsibility and expertise required for the job increases to match the student’s progress through the academic curriculum, thus assuring a stimulating, challenging employment situation. Salaries are established by individual employers, and increase as the student progresses academically.

Qualifying for Industrial Experience Program

Students applying to the industrial experience program should be full-time students in good academic standing with at least a 2.5 GPA. Freshman applicants qualify for an initial industrial experience after successfully completing at least 30 credit hours. Transfer students must complete a minimum of 12 hours as students in the School of Engineering. All students must have the equivalent of three full-time industrial experience semester credit hours to earn the certificate of completion. Policy information and specifics relating to the industrial experience program are available in the Office of Career Services. Students interested in applying for participation in the industrial experience program should contact the Office of Career Services, Mercer University, Macon, GA 31207.

Mercer Engineering Entrepreneurship Education Program

The Mercer Engineering Entrepreneurship Education Program (MEEEP) provides innovative education that instills an action-oriented entrepreneurial mindset in engineering, science and technical undergraduates. All engineering students are introduced to entrepreneurship as part of their required freshman classes. After the freshman year students in MEEEP pursue the following courses:
MKT 361: Principle of Marketing
MGT 363: Principles of Management
MGT 427: Entrepreneurship
EGR 482: Engineering Innovation and Creativity
EGR 483: Entrepreneurship in Engineering Design

Students who select the Distributional Education Program (Option 2) for their School of Engineering General Education Requirements can use MKT 361, MGT 363, and MGT 427, to satisfy a portion of the requirements. In addition, EGR 482 may be used as a technical elective with the approval of a student's faculty advisor.

Students who complete all of the above may choose to link their senior design project with MEEEP by preparing an Entrepreneurial Business Plan subject to approval by the MEEEP Committee. Students who complete all MEEEP requirements are awarded a Certificate of Achievement in Engineering Entrepreneurship.

Undergraduate Curricula

Bachelor of Science in Engineering Degree Program

The strength of Mercer's BSE program lies in its combination of breadth and depth. Breadth is achieved by every student completing a set of courses that build a strong foundation in writing, speaking, mathematics, lab sciences, and engineering fundamentals. In addition, special emphasis is placed on cross-disciplinary work, with all BSE students required to complete courses grounding them in the basic tools and techniques of electrical, mechanical, and industrial engineering. These "breadth" courses constitute the "core" of the BSE degree and are covered in greater detail in subsequent sections of this catalog.

Depth is achieved by adding to the core foundation a set of courses in one area of specialization. The areas of specialization available are:

- Biomedical
- Computer
- Electrical
- Environmental
- Industrial
- Mechanical

The program educational objectives that have been established for the BSE program are as follows. Graduates are prepared to be practicing engineers with the knowledge and skills needed to: (1) identify, formulate, and solve engineering problems through analysis and design, using the principles of science and mathematics and the modern tools of engineering; (2) work effectively in a variety of contexts, using superior communication skills, knowledge of contemporary issues with a commitment to professional ethics, and life-long learning; (3) pursue additional graduate or professional education; and (4) participate in their local and global communities through sustaining service and leadership.

The program outcomes that have been established for the BSE program are as follows. Students at the time of graduation will know and be able to: (1) apply mathematics and science principles to the solution of engineering problems, (2) identify, formulate, and solve engineering problems, (3) apply appropriate breadth and depth of skills in engineering design to meet desired needs with realistic constraints using the techniques, skills, and modern engineering tools necessary for engineering practice, (4) design and conduct experiments and analyze data, (5) function on interdisciplinary teams, (6) communicate to
both specialized and public audiences in a variety of modes, i.e., writing, presentation, etc., (7) relate the practice of engineering to global contemporary issues, to professional ethics, and to the need for lifelong learning, and (8) contribute to sustaining and improving community.

Mercer engineering seniors are required to exhibit their ability to conduct appropriate analysis and design a system, component, or process under a variety of realistic constraints. This engineering design project is a capstone requirement for all BSE seniors.

All senior engineering students are strongly encouraged to take the Fundamentals of Engineering (FE) exam during their senior year and demonstrate proficiency in both general and specialization areas of engineering. The FE exam is a nationally normed exam administered by the National Council of Engineering Examiners. Successful completion of this exam is the first step in attaining a license as a professional engineer. It is offered once during the fall and spring terms.

General Education Requirements

Engineers in the 21st century work in a complex world shaped significantly by culture and globalization. The general education requirements broaden the student experience beyond science, technology, engineering and mathematics. Students are encouraged to investigate their diverse talents and interests as part of an ongoing process of life-long learning. Four general education options, each requiring a minimum of 15 hours, allow latitude for students to explore among a rich array of topics at Mercer University or to pursue an in-depth expertise. Note that courses completed to satisfy the general education requirements cannot be used to satisfy other degree requirements. In keeping with the university’s Baptist heritage, the School of Engineering requires its students, through each general education option below, to complete at least one religion course.

Engineering graduates from Mercer are increasingly employed in an international environment. Some graduates work for foreign companies. Others are placed in companies that compete in international markets. Many engineers and corporate executives have emphasized the need for schools of engineering to prepare graduates to practice in a global environment. Engineering students are encouraged to take courses that promote social, cultural, and global awareness.

Also, Mercer sponsors a number of international study alternatives for students, some of which have an engineering emphasis. Students are encouraged to take advantage of these travel and study opportunities to fulfill part of the general education requirements.

General education requirements may be satisfied by one of the following four options: Note that courses taken in any of these options may have prerequisites which must be satisfied.

Option 1, Minor. (minimum of 15 credit hours)

Students must complete the requirements for any one of the following minors, which do not include science, technology, engineering and mathematics courses. If not fulfilled by minor requirements, students must also complete one 3-hour religion course selected from AFR 230, CHR (any course), GBK 203, SOC 340, or WGS 363.

Minors typically require 15-18 hours; see appropriate departmental sections in this catalog for details. Request a Minor Advisor from that department.

Accounting
African American Studies
Anthropology
Art
Business Administration
Latin
Media Studies
Music
Philosophy
Photography
Option 2, Distributional Education Program. (15 credit hours)

Students must choose 3 hours from Group 1 and 3 hours from Group 2 for a total of 6 hours. The remaining 9 hours may be chosen from any of Groups 1-4. At least 3 hours must be 300-level or higher and build on a lower level experience.

**Group 1, Religion (minimum of 3 hours)**
- AFR 230, CHR 101 or 150, GBK 203, SOC 340, or WGS 363

**Group 2, Global, Social, & Cultural Studies (minimum of 3 hours)**
Courses of the following disciplines: AFR, ANT, CRJ, CTA, ECN, EDUC, Foreign Languages, IAF, PSY, POL, PLS, SCP, SOC, WGS, or courses taken during an approved Study Abroad program

**Group 3, Humanities & Fine Arts**
Courses of the following disciplines: ART, CHR, CLA, CON, CTA, ENG, Foreign Languages above 111-112 (excluding FLL 467, 470), FYS, GBK, HIS, JRN, MUS, Applied Music, PHI, PHO, SST

**Group 4, Business**
Courses of the following disciplines: ACC, BUS, ECN, FIN, MGT, or MKT

Option 3, Thematic Program. (15 credit hours)

Working with their faculty advisor, students may propose an individualized, focused general education program. At least three hours must be taken in religion (Group 1 of Option 2). At least 3 hours must be 300-level or higher and build on a lower level experience.

Students may choose from a rich assortment of study abroad, interdisciplinary, and specialized studies. Freshmen may present a proposal to their advisor no sooner than the end of their first semester of collegiate study. The courses to be taken will be recorded on a form signed by the student, the advisor, and the Dean's Office.

Option 4, Great Books Program. (15 credit hours)

Complete 15 hours from the Great Books Program to include GBK 203 to fulfill the religion course requirement.

Integrated Bachelor of Science in Engineering (BSE) / Master of Science in Engineering (MSE)

An integrated bachelor of science in engineering/master of science in engineering program which involves a minimum of 30 semester hours (a full fifth year) beyond the 129 semester hours required for the BSE degree is available as an option for students who qualify for admission to the graduate program. Please see the graduate section near the back of this catalog for more information about this program.

Engineering Core

The engineering core is a set of required courses taken by all BSE students. Most of the freshman and sophomore courses are dedicated to basic subject matter in writing, speaking,
mathematics, lab sciences, and engineering fundamentals. Special emphasis is placed on
cross-disciplinary work, with all BSE students required to complete courses grounding them
in the basic tools and techniques of electrical, mechanical, and industrial engineering.
Following this preparation, students dedicate their junior and senior years to development of
specialized proficiency. Prior to graduation each student must exhibit an ability to accomplish
engineering design by completing a project in which small groups design, build and test a
realistic engineering system.

Bachelor of Science in Engineering (BSE)
Degree Requirements: Core Courses

1. Mathematics and Basic Sciences Courses…………………………………………23 hours
   CHM 111. General Chemistry I
   MAT 191. Calculus I
   MAT 192. Calculus II
   MAT 330. Intro to Differential Equations
   PHY 121L. General Physics I Lab
   PHY 161. General Physics I
   PHY 162. General Physics II*
   PHY 162L. General Physics II Lab*
   *Environmental students take Biological/Earth Sciences, or additional chemistry course
      work in place of PHY 162 and PHY 162L

2. Engineering Courses………………………………………………………………..35 hours
   EGR 107. Intro to Engineering Design
   EGR 108. Professional Practice
   EGR 126. Programming for Engineers
   EGR 232. Statics/Solid Mechanics
   EGR 235. Thermodynamics
   EGR 236. Dynamics
   EGR 244. Electrical Fundamentals I
   EGR 245. Electrical Fundamentals II
   EGR 246L. Electrical Fundamentals II Lab
   EGR 312. Engineering Economy
   EGR 386. Feedback Control

3. Technical Communication Courses………………………………………………3 hours
   TCO 341. Technical Communication

Total Core Course Semester Hours Required……………………………………61 hours**
**Environmental Specialization …………………………………………………..57 hours

A typical array of courses taken by students enrolled in the BSE programs is shown
below. More detailed information appears in the specialization presentations shown else-
where in this catalog.
Bachelor of Science in Engineering  
Basic Level Curriculum  

**Freshman Year**

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<thead>
<tr>
<th>First Semester</th>
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<tr>
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**Sophomore Year**

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<td>MAT 330</td>
<td>EGR 246L</td>
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<td>PHY 162L</td>
<td>Technical course required by specialty</td>
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**Junior Year**

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<td>Technical courses required by specialization</td>
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<td>TCO 341</td>
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<tr>
<td>Technical courses required by specialization</td>
<td>XXX Gen Ed III</td>
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1 Approximately half of all engineering freshmen take EGR 108 in the fall semester, followed by EGR 126 in the spring. The other half of the freshman class takes EGR 126 in the fall semester followed by EGR 108 in the spring.

2 XXX Gen Ed = General Education Requirement

3 Biomedical and environmental students take CHM 112 this semester, and they begin their physics sequence in the fall semester of the sophomore year. For more detail see the course sequence for specific specializations.

4 XXX 28Z includes BME 288 and ISE 288, both one-credit courses taken by students in the specializations of biomedical and industrial engineering. The environmental specialization includes this introduction as a three-credit course, while the computer, electrical and mechanical specialization includes a three-credit general education course. For more detail see the course sequence for specific specializations.

5 Environmental students take Biological/Earth Science or additional Chemistry course work in place of PHY 162 and PHY 162L. For more details, see the course sequence for specific specializations.

6 Biomedical and computer engineering students take EGR 235 in the junior year. For more detail see the course sequence for specific specializations.

7 Multivariable calculus is taken by students enrolled in the biomedical traditional path, electrical and mechanical specializations.
**Senior Year**

**First Semester**
- XXX 487 Engr Design
- XXX Gen Ed IV
- Technical courses required by specialization: 11
- Total: 16

**Second Semester**
- XXX 488 Engr Design Exhibits II
- XXX Gen Ed V
- Technical courses required by specialization: 11
- Total: 16

### EGR Courses

**EGR 101. Freshman Engineering Honors**

**Prerequisites:** Outstanding high school GPA and SAT score. Permission of the dean.

Co-requisites: EGR 126 and MAT 191.

To familiarize the students with robots and robotic programming as a foundation to discuss the general topic of autonomy. EGR 101 is the first of two courses sequence that introduces freshmen engineering honors students to advanced topics normally not covered in freshman courses. This course is graded S/U.

**EGR 102. Freshman Engineering Honors II**

**Prerequisites:** EGR 101.

Students explore fundamental issues involved in the design of autonomous entities including the possibility mimicking human behavior. EGR 102 is the second of a two-course sequence that introduces freshmen engineering honors students to advanced topics normally not covered in freshman courses. This course is graded S/U.

**EGR 107. Introduction to Engineering Design**

**Prerequisite:** Be a fully admitted student in the School of Engineering or have the written permission of the Dean.

Systematic procedures for engineering design. Student teams pursue design projects that incorporates problem identification, information gathering, development of alternative solutions, merit analysis, decision presentation, implementation, testing, and redesign. Students practice skills in preparing and presenting a variety of engineering-related written and oral reports.

**EGR 108. Professional Practices**

**Prerequisite:** Be a fully admitted student in the School of Engineering or have the written permission of the Dean.

In a seminar format, small groups explore the history of engineering, engineering ethics, and the impact of engineering practice in the context of society. Critical reading and thinking skills are developed through extensive readings and discussions of relevant engineering, social science, and humanities topics. Students gain fluency in preparing and presenting the results of these discussions, both in written and oral format.

**EGR 126. Programming for Engineers**

**Prerequisite:** Be a fully admitted student in the School of Engineering or have the written permission of the Dean.

Computer programming and the use of computers to solve engineering problems. Special attention is given to development of an organized thought process in which analysis, modeling, and construction of algorithms lead to structured procedures for solving non-trivial problems.
EGR 190-290-390-490. Cooperative Education

Work Experience (0-1-1)
Prerequisites: Minimum GPA of 2.50; approval of the Office of Career Services and faculty advisor. Satisfy resident credit requirements. Four month work periods alternated with academic semesters.

EGR 201. Sophomore Engineering Honors I (1-0-1)
Prerequisite: EGR 102.
Each student develops a personal project plan for the remainder of the engineering honors experience. This course is graded S/U.

EGR 202. Sophomore Engineering Honors II (1-0-1)
Prerequisite: EGR 201.
Each student works with a faculty advisor in accordance with a personal project plan that was approved for the remainder of the engineering honors experience. This course is grade S/U.

EGR 232. Statics/Solid Mechanics (3-0-3)
Corequisites: MAT 192, PHY 161.

EGR 235. Thermodynamics (3-0-3)
Prerequisites: PHY 161, MAT 192.
A first course in the fundamentals of thermodynamics. Properties of substances, open and closed systems, conservation of mass, conservation of energy and the second law of thermodynamics. Second law analysis of systems. Introduction to cycle analysis. Use of these principles in the analysis and solution of engineering problems.

EGR 236. Dynamics (3-0-3)
Prerequisites: EGR 232, MAT 192, PHY 161.
Planar kinematics of particles and rigid bodies. Planar kinetics of particles and rigid bodies: force and acceleration, work and energy, and impulse and momentum.

EGR 244. Electrical Engineering Fundamentals I (3-2-4)
Corequisite: MAT 330.
Basic electrical circuit analysis; DC and sinusoidal steady-state circuits, manual and computer analysis methods, capacitance and inductance.

EGR 245. Electrical Engineering Fundamentals II (3-0-3)
Prerequisite: EGR 244.
Corequisite: EGR 246L.
An introduction to electronic components: diodes, junction transistors, field effect transistors, operational amplifiers, and small signal amplifiers. Magnetic fields and circuits. Rotational and moving iron transducers, AC and DC motors and generators, transformers, single phase power and stepper motors.

EGR 246L. Electrical Fundamentals Lab (0-3-1)
Corequisite: EGR 245.
Basic methods and instrumentation for measurements of electrical circuits and operational amplifier and diode circuits. Planning of experimental processes and procedures; manual and direct computer collection of experimental data, and off-line and on-line data analysis. Reports of experimental investigation, including descriptions of study objectives, procedures and methods, analysis methods, results, and conclusions.

SCHOOL OF ENGINEERING / 277
EGR 252. Probability and Statistics for Engineers (3-0-3)
Prerequisite: C or better in MAT 191.

EGR 301. Junior Engineering Honors I (1-0-1)
Prerequisite: EGR 202.
Each student works with a faculty advisor in accordance with a personal project plan that was approved for the remainder of the engineering honors experience. This course is graded S/U.

EGR 302. Junior Engineering Honors II (1-0-1)
Prerequisite: EGR 301.
Each student works with a faculty advisor in accordance with a personal project that was approved for the remainder of the engineering honors experience. This course is graded S/U.

EGR 312. Engineering Economy (3-0-3)
Prerequisite: MAT 192.
Economics in engineering decision making, interest and present worth, depreciation, economic analysis of engineering alternatives. Project management, budgeting and cost estimation, and economic analysis. The use of software tools in economic analysis and project management.

EGR 386. Feedback Control and Modeling for Engineers (3-0-3)
Prerequisite: MAT 330.
Corequisites: EGR 236, EGR 245.
Solving linear time-invariant differential equations using Laplace transforms. Transient response for first and second order systems, including time constants, damping ratio, natural frequencies, overshoot and settling time. Relative and absolute stability. Analytical and empirical modeling of engineering systems. Control engineering topics including block diagrams, Routh Hurwitz, root locus and bode plots. Introduction to PID and lead/lag compensators and to design of feedback control systems with root locus, bode and or simulation.

EGR 401. Senior Engineering Honors I (1-0-1)
Prerequisite: EGR 302.
Each student submits a draft version of his or her Engineering Honors Report. This course is graded S/U.

EGR 402. Senior Engineering Honors II (1-0-1)
Prerequisite: EGR 401.
Each student revises the draft version of his or her engineering Honors Report in response to faculty reviews and submits the final version in completion of the requirements for the Engineering Honors Program. This course is graded S/U.

EGR 482. Engineering Innovation and Creativity (3-0-3)
Pre-requisites: Senior standing or permission of MEEEP Director.
This is an engineering technical elective open to those student who have selected and been accepted into the MEEEP. The course will focus on integrating elements of entrepreneurship with engineering. New venture creations and creation of new product lines within existing businesses are analyzed through case studies and semester projects. Students will develop a business plan associated with their senior design projects.
EGR 483. Entrepreneurship in Engineering Design (0-1-0)
Pre-requisites: EGR 482; BME 487, ECE 485, ECE 487, EVE 487, ISE 487, or MAE 487.
Student seminars and advising for assessment of business plans related to entrepreneurship and innovation in an engineering design project.

SPECIAL COURSES: EGR 191, 192, 193, 491, 492, 493, 498, 499 for variable credit. May be repeated for credit with approval of academic advisor and permission of the Dean.

EGR 191-192-193. Special Topics (1-6 hours)
EGR 291-292-293. Special Topics (1-6 hours)
EGR 491-492-493. Special Topics (1-6 hours)
EGR 498. Professional Seminar (1-6 hours)
EGR 499. Independent Study (1-6 hours)

Biomedical Specialization

During the last quarter century the world has witnessed unprecedented progress in engineering and medical science resulting in dramatic lifestyle changes. Biomedical engineering is at the confluence of modern engineering and medicine. Biomedical engineers apply engineering methods to problems in medicine and the life sciences and have played a vital role in the rapid and unparalleled advances that have occurred in these fields.

Biomedical engineers contribute to improved health care and enrich the quality of our lives. A biomedical engineer may work as a member of a research team, along with other health professionals, to find solutions to diverse medical problems. Biomedical engineers design new therapeutic and diagnostic instruments that permit treatment and visualization of internal organs. Biomedical engineers develop new materials and devices to supplant or augment diseased or malfunctioning organs and systems. Biomedical engineers analyze human and prosthetic performance in clinical environments. Among the most visual examples of biomedical engineering developments are the computer assisted tomography (CAT) and ultrasonic imaging scanners, kidney dialysis units, and pacemakers, heart valves and vascular grafts.

Biomedical engineers have secured challenging positions in a variety of related fields with responsibilities ranging from the practice of medicine and traditional engineering, to the design and manufacture of bioinstrumentation devices, to the administration health-care services and management of hospital components, to the computer monitoring and simulation of medically related systems.

In recognition of the complexity of the biomedical engineering field, many employers expect entry-level graduates to possess academic credentials beyond the Bachelor of Science in Engineering Degree. Because of this, and to increase one’s flexibility, biomedical engineering students are strongly encouraged to excel academically so that graduate/professional school is an option.

Academic Requirements for BSE, Biomedical Specialization

In addition to the retention, graduation, and academic requirements of Mercer University and the School of Engineering, students choosing the biomedical specialization must maintain a Mercer grade point average of at least 2.0 in required biomedical specialization courses and technical electives.
Departmental Honors for BSE, Biomedical Specialization

Each year, the engineering faculty in the biomedical specialization determines the graduating biomedical specialization student who has best distinguished himself or herself and recognizes this student as the Outstanding Engineering Graduate in the Biomedical Specialization.

The BSE Curriculum, Biomedical Specialization

The goals of the biomedical specialization curriculum are to produce graduates who can effectively accomplish biomedical engineering design and analysis, who can effectively communicate orally and in writing, and who can successfully compete with other engineers in their first engineering position, and to provide a curriculum that exceeds minimum recognized standards for engineering education.

Owing to the technical complexities of, and team-oriented approach to, solving medical problems, biomedical specialization students study the basic sciences, mathematics, and engineering common among traditional engineering fields. Beyond this, they study the life sciences and how traditional engineering can be used to understand, analyze, and design physiological and medical systems. Specific components of the curriculum are outlined in the following section.

In recognition of the expectations of employers, all biomedical specialization students are required to select elective courses and curricular paths that allow them to explore engineering or medical sciences in more detail. Among these options at the bachelor’s level are the pre-medical or other science course requirements or a concentration of courses in at least one of the other engineering disciplines. Qualified students are strongly encouraged to pursue post baccalaureate education whether in a medical or other professional school, or in graduate school, all of which are available at Mercer.

Mercer’s five-year Master of Science in Engineering (MSE) in Biomedical Engineering degree is available to the top academic students and also includes the emphasis of minoring in another engineering discipline. The emphasis of this degree is on the practice of engineering. Students accepted into the MSE program begin combined BSE and ME studies at the beginning of their senior year. The two degrees are awarded simultaneously upon graduation. The MSE degree may also be used as a stepping stone for advanced graduate education at other institutions.

Mercer’s schools of engineering and medicine have established a cooperative admission program for highly motivated and talented students who are residents of Georgia. Students who apply, are accepted, and maintain enrollment in The Dual Biomedical Engineering Medical School Admission Program (DBemSAP) are accepted to the Mercer School of Medicine upon completion of their BSE biomedical specialization graduation requirements. Application to the program is done at the beginning of the sophomore year and is initiated by contacting the Chair of the Biomedical Engineering Department. Admission to this program is highly selective and DBemSAP students must indicate their continued compliance with the mission of the Mercer School of Medicine and must maintain high academic achievements. More information may be obtained from the Chair of the Biomedical Engineering Department.

Bachelor of Science in Engineering (BSE)
Degree Requirements: Biomedical Specialization

1. UNV 101 .................................................................1 hour
2. Engineering Core ....................................................61 hours
3. Additional Mathematics* ...........................................3 hours
MAT 293 Multivariable Calculus
*Premedical Path Students may substitute CHM 222 Organic Chemistry II

4. General Education Requirements ...........................................15 hours

5. Other Required Courses outside of BME .................................16 hours
   BIO 205. Introduction to Biology for Biomedical Engineers
   BIO 325. Comparative Animal Physiology
   CHM 112. General Chemistry II
   CHM 221. Organic Chemistry I

6. Required Biomedical Engineering (BME) courses ......................24 hours
   BME 288. Introduction to Biomedical Engineering I
   BME 402. Biomedical Instrumentation
   BME 412. Biomechanics
   BME 425. Basic Transport Phenomena
   BME 445L. Senior Biomedical Engineering Lab 2
   BME 440. Dynamics of Biological Fluids
   BME 460. Biomedical Materials
   BME 470. Biomedical Applications/Microprocessors
   BME 480. Introduction to Senior Design
   BME 487. Engineering Design Exhibit I
   BME 488. Engineering Design Exhibit II

7. Technical Electives ............................................................9 hours
   Technical electives are advanced engineering, science, and math courses chosen
   by the student with the approval of the student’s faculty advisor for the purpose of
   providing additional depth in areas of special interest to the student. Students pur-
   suing the MSE degree must select technical electives consistent with minor require-
   ments in another engineering discipline. Students are strongly encouraged to pur-
   sue post baccalaureate education.

Total Semester Hours Required (Traditional Path) .....................129 hours

Biomedical Specialization-Traditional Path

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<thead>
<tr>
<th>Fall Semester</th>
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<td>EGR 108 Professional Practices</td>
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<td>EGR 236 Dynamics</td>
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<td>BIO 205 Biology for BME's</td>
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<td>PHY 161 General Physics I</td>
<td>MAT 293 Multivar Calculus</td>
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## Junior Year

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<td>EGR 235 Thermodynamics</td>
<td>BME 402 Bio Instrumentation</td>
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<td>EGR 386 Feedback Control</td>
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<td>TCO 341 Tech Communication</td>
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## Senior Year

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<td>BME 412 Biomechanics</td>
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<td>BME 440 Dynamics of Bio Fluids</td>
<td>BME 487 Engr Dsgn Exhibit I</td>
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<td>BME 445L BME Sr. Capstone Lab</td>
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## Biomedical Specialization Pre-Med Path

### Freshman Year

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<td>MAT 191 Calculus I</td>
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Sophomore Year

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<th>Fall Semester</th>
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<tr>
<td>BME 288 Intro Biomedical Engr</td>
<td>EGR 236 Dynamics</td>
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<tr>
<td>EGR 232 Statics/Solid Mech</td>
<td>EGR 245 Electrical Fund II</td>
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Junior Year

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<td>BIO 212 Intro to Biology II</td>
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<td>CHM 221 Organic Chemistry I</td>
<td>BME 402 Bio Instrumentation</td>
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<td>EGR 235 Thermodynamics</td>
<td>BME 425 Basic Transport Pheno</td>
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<td>EGR 386 Feedback Control</td>
<td>BME 480 Intro to Senior Design</td>
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<td>TCO 341 Tech Communication</td>
<td>CHM 222 Organic Chemistry II</td>
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<td>EGR 312 Engr Economics</td>
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Senior Year

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<td>BIO 325 Comp Animal Phys.</td>
<td>BME 460 Bio Materials</td>
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<td>BME 412 Biomechanics</td>
<td>BME 488 Engr Design Exhibit II</td>
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<td>BME 440 Dynamics of Bio Fluids</td>
<td>XXX Gen Ed IV</td>
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<td>BME 445L BME Sr. Capstone Lab</td>
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<td>BME 470 Bio Appl of Microcont.</td>
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<tr>
<td>BME 487 Engr Design Exhibit I</td>
<td>XXX Technical Elective</td>
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Fifth Year

See Master of Science in Engineering (MSE) Degree Programs in the Graduate section of this catalog.

BME Courses

**BME 288. Introduction to Biomedical Engineering**

(0-3-1)  
Prerequisite: EGR 126.  
An introduction to LabVIEW programming language and to biomedical engineering.

**BME 310. Numerical Methods for Biomedical Engineers**

(3-0-3)  
Prerequisites: EGR 252. and MAT 330.  
The course objectives are to build concrete concepts/ideas and skills of numerical methods and to apply these to solve engineering and scientific problems for Biomedical Engineers. Topics include modeling, computers, error analysis, roots of equations, linear algebraic equations, optimization, curve fitting, numerical differentiation, ordinary differential equations, and partial differential equations. MATLAB is the main computer software to solve problems numerically. Independent course project is required.
BME 402. Biomedical Instrumentation (2.5-1.5-3)
Prerequisite: EGR 245, and EGR 386.
Methods and instrumentation for measuring quantities of biological and medical significance, especially electrical signals from the body, but also including temperature, blood pressure, and body chemistry. Design of biomedical instruments. A laboratory experience is associated with this class and provides hands-on experience on instrument component design including amplifiers and filters.

BME 412. Biomechanics (3-0-3)
Prerequisites: EGR 232, EGR 236.

BME 413/513*. Advanced Biomechanics (3-0-3)
Prerequisite: BME 412.
Current topics in biomechanics research including musculoskeletal mechanics, sports biomechanics, tissue engineering, 3-D segmental analysis, fracture fixation, implant design, and/or clinical biomechanics are examined. Students will be exposed to current issues in the field through discussions, presentations, and paper.

BME 425. Basic Transport Phenomena (2.5-1.5-3)
Prerequisites: EGR 235 and MAT 330.
Fundamentals of the transport of energy, mass and momentum in human cells and tissues. Introduction to the chemical and physical properties of body fluids, cell and tissue structures, and solute transport in biological systems. Thermal transport via conduction, convection, radiation, and evaporation in the human body. Oxygen transport in the lungs and other biological tissue. Introduction to pharmacokinetic analysis and modeling. Applications and design of transport processes in extracorporeal devices. A laboratory experience is associated with this class providing hands-on experience with the concepts.

BME 426. Diagnostic Imaging Systems (3-0-3)
Prerequisites: EGR 244, EGR 245, MAT 330.
Applications of modern imaging methods to presentation of visual information obtained from a variety of sources including x-ray, fluoroscopy, computed tomography, fiber optics, nuclear medicine, ultrasonic and magnetic resonance imaging.

BME 440. Dynamics of Biological Fluids (3-0-3)
Prerequisites: BME 425.

BME 445L. Senior Biomedical Engineering Laboratory (0-3-1)
Prerequisites: BME 402, BME 425.
Laboratory investigation of biomedical instrumentation and signal analysis. Basic experiments in biofluid and thermal transport. Design and conduct of experiments using modern techniques, skills and tools.

BME 450/550*. Advanced BioFluids (3-0-3)
Prerequisites: BME 440 or MAE 430 (or permission of instructor)
The course objectives continue to build on advanced theories and solution techniques related to biological fluid flow phenomena primarily concentrating on the flows in cardiovascular
and respiratory systems. Topics covered include: hemodynamics in carotid artery bifurcations, coronary arteries, abdominal bifurcations, arterial anastomoses, and air-particle transport in the lung airways. Computational fluid dynamics modeling and simulation are the tools to solve the flow phenomena numerically. A group project report and presentation, in the form of a conference paper/presentation, are required.

**BME 460. Biomedical Materials** (3-0-3)
Prerequisites: BIO 205 or BIO 220 or BIO 211, CHM 221, EGR 232.
Chemical and physical properties of metals, polymers, and ceramics for use in biomedical applications. Biological corrosion of materials, and response of living tissue to foreign substances. Criteria for evaluation of materials for prostheses and artificial organs. Design considerations for implantable prostheses materials.

**BME 470. Biomedical Applications of Microcontrollers** (3-0-3)
Prerequisite: EGR 245.
Interface of memory and other devices such as analog-to-digital converters and digital-to-analog converters to microcontroller chips. Selection and assembly-language programming of microcontrollers for interfacing to peripherals. Design of microcomputer systems for medical use. Includes laboratory exercises and design projects.

**BME 480. Introduction to Senior Design** (0-1-0)
Co-requisite/Prerequisite: BME 402, BME 425, EGR 312, and TCO 341.
Course will provide guidance for the selection of team members and topic for the senior design project to be completed in BME 487 and BME 488. To successfully complete the course, a student must belong to a team (3 to 4 persons) and briefly outline the project goals to be implemented in BME 487 and BME 488. A seminar series will be conducted to facilitate student introduction to potential industrial clients and projects. Seminar attendance is required to obtain a satisfactory course grade. This course is graded S/U.

**BME 487. Engineering Design Exhibit I** (0-6-2)
Prerequisites: EGR 312, TCO 341, BME 402, BME 425, and BME 480. Must have completed all required 100- and 200-level engineering, mathematics, and science courses.
Corequisites: BME 445L.
Multi-disciplinary design projects with substantial BME content.
Small groups design, build, and test realistic engineering systems under faculty supervision.
Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

**BME 488. Engineering Design Exhibit II** (0-6-2)
Prerequisite: BME 487.
Continuation of BME 487 multi-disciplinary design projects with substantial BME content.
Small groups design, build, and test realistic engineering systems under faculty supervision.
Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

SPECIAL COURSES: BME 491, 492, 493, 498, 499 for variable credit. May be repeated for credit with approval of academic advisor and the Chair of the Biomedical Engineering Department.

BME 491-492-493. Special Topics (1-6 hours)
BME 498. Professional Seminar (1-6 hours)
BME 499. Independent Study (1-6 hours)
BME 591-592-593*. Special Topics (1-6 hours)
Note: 5XX courses are graduate courses available only to students enrolled in a graduate program. They have additional requirements beyond those specified for the corresponding 4XX courses.

Computer Specialization

The central focus of the computer specialization is the engineering design of systems which operate in real-time with computers embedded in the system as a component or controller. The embedded computer is often a single chip “microcontroller” or a custom designed small computer which consists of a small number of chips. A mix of electronics fundamentals, general engineering fundamentals, engineering design, and computer system principles form the computer specialization. This is obviously a rapidly expanding field of which growth is fueled by the progress in semiconductor chip size and speed. The amount of memory available on a single chip has quadrupled each three years for over two decades. Processor and logic chips are not far behind in this growth pattern and this has led to astonishing increases in the power of computers, especially at the low cost end of the spectrum. As a consequence, computers are found “embedded” in the design of everything from household appliances to automobiles. The growth in chip capacity also leads to the ability to put a lot of software on just one or two chips, enabling these embedded, low-cost computers to run more and more complex software. That drives engineering programs with a computer specialization to include not only modern programmable chip based hardware design, but also modern software design methodology in anticipation of the implementation of more and more complex software on even cheaper systems. As the Internet expands, local communication capability between computers is also rising in importance.

Academic Requirements for BSE, Computer Specialization

The computer specialization builds upon the base provided by the engineering core and general studies. Beyond this base, the curriculum is composed of two parts; computer specialization required courses and technical electives. Approved technical elective courses enable students to deepen their background in computer engineering and to expand their knowledge in related fields. Successful completion of the curriculum leaves the student prepared to embark on a career in computer engineering or to pursue advanced education in graduate school. The attention of the student is directed to the retention, graduation and academic requirements of the University and the School of Engineering. Required computer specialization courses require a C or better in ECE, EGR, and CSC prerequisites. Students must also maintain a minimum cumulative grade point average of 2.0 in courses with the ECE and CSC prefix. Computer specialization students must complete the key foundation courses in the discipline before enrolling in senior design ECE 485.

Departmental Honors for BSE, Computer Specialization

Each year, the engineering faculty in the computer specialization determines the graduating computer engineering student who has best distinguished himself or herself and recognizes this student as the Outstanding Engineering Graduate in the Computer Specialization.

Bachelor of Science in Engineering (BSE) Degree Requirements:

- **Computer Specialization**
  1. UNV 101 .......................................................... 1 hour
  2. Engineering Core .............................................. 61 hours
  3. Additional Mathematics ...................................... 4 hours
     MAT 225. Topics in Discrete Mathematics
4. General Education Requirements ........................................... 15 hours

5. Required ECE and CSC Courses ............................................. 45 hours
   ECE 202. Signals and Systems
   CSC 204. Programming I
   CSC 205. Programming II
   CSC 245. Data Structures and Algorithm Analysis
   CSC 480. Software Engineering
   ECE 322. Digital Logic and Computer Organization
   ECE 323. Microcomputer Fundamentals
   ECE 340. Electromagnetic Applications
   ECE 424. Digital Design with VHDL
   ECE 425. Introduction to Computer Architecture
   ECE 428. Embedded Computer Systems
   ECE 455. Computer Networks
   ECE xxx. Senior Design Elective
   ECE 481. Introduction to Senior Design - Computer Specialization
   ECE 485. Engineering Design Exhibit I - Computer Specialization
   ECE 486. Engineering Design Exhibit II - Computer Specialization

6. Technical Electives ........................................................... 3 hours
   Technical electives are chosen by the student with the approval of the student's faculty advisor for the purpose of advancing the student's academic goals. Technical electives must be selected from a list provided by the computer specialization faculty, and must provide depth and appropriate design content in computer engineering areas.

Total Semester Hours Required ............................................. 129 hours

Computer Specialization

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<thead>
<tr>
<th>Freshman Year</th>
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<tr>
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<td>EGR 108 Professional Practices</td>
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SCHOOL OF ENGINEERING / 287
### Junior Year

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<tr>
<td>CSC 205  Programming II</td>
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<td>ECE 202  Signals and Systems</td>
<td>ECE 428  Embedded Comp Sys</td>
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<td>ECE 323  Microcomputer Fund</td>
<td>ECE 481  Intro to Senior Design</td>
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<td>MAT 225  Topic in Discrete Math</td>
<td>EGR 235  Thermodynamics</td>
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<td>ECE 424  Digital Design/UHDL</td>
<td>EGR 386  Feedback Control</td>
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### Senior Year (Standard BSE program)

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<tr>
<td>CSC 480  Software Engineering</td>
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<td>ECE 340  Electromagn Appl</td>
<td>ECE 4xx  ECE Tech Elective</td>
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<td>ECE 425  Computer Architecture</td>
<td>ECE 4xx  Tech Elective</td>
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<td>ECE 455  Computer Networks</td>
<td>EGR 312  Engineering Economy</td>
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<td>ECE 485  Engr Design Exhibits I</td>
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### Integrated Bachelor of Science in Engineering /Master of Science in Computer Engineering

Students who complete the first three years of the Bachelor of Science in Engineering with a Computer Specialization or in any engineering specialization with appropriate computer courses included and with grades which qualify them for graduate study may directly pursue the Master of Science in Engineering degree during their fourth and fifth years of study. A full calendar year, including one summer term, is needed to complete the Master of Science in Engineering in Computer Engineering or in Electrical Engineering degrees. See the graduate studies section near the back of this catalog for more information about the integrated master of science in engineering programs.

### Senior Year (Integrated Bachelor of Science in Engineering/Master of Science in Engineering students only)

<table>
<thead>
<tr>
<th>Fall Semester</th>
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<tr>
<td>ECE 340  Electromagn Appl.</td>
<td>EGR 312  Engineering Economy</td>
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<tr>
<td>ECE 425  Computer Architecture</td>
<td>ECE 486  Engr Design Exhibits II</td>
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<tr>
<td>ECE 455  Computer Networks</td>
<td>ECE 4xx  ECE Technical Elective*</td>
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<tr>
<td>ECE 485  Engr Design Exhibits I</td>
<td>ECE 4xx  ECI Technical Elective*</td>
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<td>SSE 556  Java Design I</td>
<td>XXX  HU/SS/GA III</td>
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<td>ECE 4xx  ECE Technical Elective*</td>
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### Graduate Year (Integrated Bachelor of Science in Engineering/Master of Science in Engineering students only)

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Summer Term (Integrated Bachelor of Science in Engineering/
Master of Science in Engineering students only)

ECE 6xx  Grad Course  3  0  3
ECE 6xx  Grad Course  3  0  3
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              6  0  6

See graduate section of this catalog for more information about the Integrated Bachelor of Science in Engineering/Master of Science in Engineering Program.

Electrical Specialization

The professional activities of electrical engineers directly affect the lives of most of the world's population every day. They are responsible for the design and application of digital computers, design and development of telephone networks and communication systems, radio and television transmitters and receivers, automatic control systems, electric power generation and distribution systems, and a wide variety of other electrical and electronic systems. Within the broad scope of these systems, the electrical engineer is concerned with a challenging and diverse array of design and development problems, and is in fact functioning as a prime mover in the “high tech” age.

Electrical engineers design minuscule semiconductor integrated circuits which contain many thousands of elementary devices. They design systems for automatically controlling mechanical devices and a variety of processes. They are responsible for the design of satellite communication links as well as biomedical instrumentation for patient monitoring systems for hospitals and medical research. The development of the microprocessor has expanded the opportunities for electrical engineers to improve the design of familiar products since these devices are now incorporated into automobiles, consumer and office products, entertainment systems, communication systems and a vast variety of test and measurement instruments and machine tools.

Academic Requirements for BSE, Electrical Specialization

The electrical specialization builds upon the base provided by the engineering core and general studies. Beyond this base, the curriculum is composed of two parts; electrical specialization required courses and technical electives. Approved technical elective courses enable students to deepen their background in electrical and computer specializations and to expand their knowledge in related fields. Successful completion of the curriculum leaves the student prepared to embark on a career in electrical engineering or to pursue advanced education in graduate school. The attention of the student is directed to the retention, graduation and academic requirements of the University and the School of Engineering. Required electrical specialization courses require a C or better in ECE and EGR prerequisites. Students must also maintain a minimum cumulative grade point average of 2.0 in courses with the ECE prefix. Engineering students in the Electrical specialization must complete the key foundation courses in the discipline before enrolling in senior design, ECE 487.

Departmental Honors for BSE, Electrical Specialization

Each year, the engineering faculty in the electrical specialization determines the graduating electrical specialization student who has best distinguished himself or herself and recognizes this student as the Outstanding Engineering Graduate in the Electrical Specialization.
The Dixie Crow Educational Foundation Scholarship

The Dixie Crow Educational Foundation Scholarship program provides financial awards for selected undergraduate students of the Mercer School of Engineering, with a preference for those who are pursuing an engineering degree in the electrical specialization and are residents of the Middle Georgia area. These scholarships are renewed for three additional years provided the student meets the academic requirements required for renewal, enrolls full-time, and maintains continuous enrollment. The Dixie Crow Chapter of the National Old Crows Association is an electronic warfare engineering organization.

The BSE Curriculum, Electrical Specialization

The electrical specialization curriculum is designed to provide a foundation for a student to pursue a career in engineering with expertise in electrical engineering and possibly special expertise in one or more of its sub-fields. The program puts emphasis on learning to function within teams of professionals whose members are pursuing a common engineering goal, and on communicating effectively with both technical and non-technical audiences. Graduates of the bachelors degree program are competent engineers who are prepared to pursue a broad variety of professional avenues.

Bachelor of Science in Engineering (BSE)
Degree Requirements: Electrical Specialization

1. UNV 101 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1 hour
2. Engineering Core . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .61 hours
3. Additional Mathematics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .3 hours
   MAT 293. Multivariable Calculus
4. General Education Requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .15 hours
5. Required ECE Courses . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .46 hours
   ECE 202. Signals and Systems
   ECE 311. Electronics I
   ECE 312. Electronics II
   ECE 312L. Electronics II Laboratory
   ECE 322. Digital Logic and Computer Organization
   ECE 323. Microcomputer Fundamentals
   ECE 340. Electromagnetic Applications
   ECE 341. Electromagnetic Field Theory
   ECE 431. Analog and Digital Signal Processing
   ECE 451. Communications I
   ECE 451L. Communications Laboratory
   ECE 452. Digital Communications and Stochastic Processes
   ECE xxx. Senior Design Elective
   ECE xxx. Senior Design Elective
   ECE xxx. Senior Design Elective
   ECE xxx. Senior Design Elective
   ECE 480. Introduction to Senior Design - Electrical Specialization
   ECE 487. Engineering Design Exhibit I - Electrical Specialization
   ECE 488. Engineering Design Exhibit II - Electrical Specialization
6. Technical Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .3 hours
   Electives are chosen by the student with the approval of the student's faculty advisor for the purpose of advancing the student's academic goals. The four ECE Senior
Design Electives are selected from a list of ECE courses provided by the electrical specialization faculty. The additional Technical Elective is selected from a list of engineering, mathematics, computer science, chemistry, and physics courses provided by the electrical specialization faculty.

Total Semester Hours Required ........................................... 129 hours

### Electrical Specialization

#### Freshman Year

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<tr>
<td>CHM 111</td>
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<td>EGR 107  Intro to Engr Design 2 3 3</td>
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<td>Programming for Engr 3 0 3</td>
<td>EGR 108  Professional Practices 3 0 3</td>
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#### Sophomore Year

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#### Senior Year (Standard BSE program)

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Integrated Bachelor of Science in Engineering/Master of Science in Engineering, Electrical Specialization

Students who complete the first three years of the Bachelor of Science in Engineering with an electrical specialization with grades which qualify them for graduate study may directly pursue the Master of Science in Engineering degree during their fourth and fifth years of study. A full calendar year, including one summer term, is needed to complete the Master of Science in Engineering in Electrical Engineering or in Computer Engineering degrees. See the graduate studies section near the back of this catalog for more information about the integrated Master of Science in Engineering programs.

Senior Year (Integrated Bachelor of Science in Engineering/Master of Science in Engineering students only)

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Graduate Year (Integrated Bachelor of Science in Engineering/Master of Science in Engineering students only)

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Summer Term (Integrated Bachelor of Science in Engineering/Master of Science in Engineering students only)

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See graduate section of this catalog for more information about the Integrated Bachelor of Science in Engineering/Master of Science in Engineering Program.

ECE Courses

ECE 202. Signals and Systems (3-0-3)
Prerequisites: C or better in EGR 244, MAT 330.
Signals and systems concepts; linear time-invariant systems; impulse response and convolution; transforms analysis of signals and systems; Fourier Series and Fourier Transforms; frequency-domain analysis of circuits; frequency selective filters; Bode plots; fundamentals of analog filter design.

ECE 311. Electronics I (3-0-3)
Prerequisites: C or better in ECE 202, C or better in EGR 245.
Introduction to the characterization of passive and active semiconductor devices and applications in electrical circuits. Focus on diodes, junction and field effect transistors, integrated
circuit operational amplifiers, and on their typical uses in amplifiers, ac/dc conversion, switching, and other linear and nonlinear systems. Features use of simulation tools.

**ECE 312. Electronics II**  
(2-0-2)  
Prerequisite: C or better in ECE 311.  
Corequisite: ECE 312L.  
Continuation of the study of characteristics and applications of semiconductor devices electronic circuits. Extension to power devices, multi-component integrated circuits, optoelectronic devices, and to oscillators and filters at video and RF frequencies. Focus hands-on laboratory experiences and the circuit design process.

**ECE 312L. Electronics II Laboratory**  
(0-3-1)  
Corequisite: ECE 312.  
Hands-on laboratory experiences with a focus on the circuit design process.

**ECE 322. Digital Logic and Computer Organization**  
(2-0-2)  
Corequisite: EGR 244.  
Engineering approaches to design and analysis of digital logic circuits. Number systems, Boolean algebra, logic gates, truth tables, Karnaugh maps, combinational circuits, sequential circuits, PLDs in digital design, computer organization and operation, microprocessors and microcontrollers.

**ECE 323. Microcomputer Fundamentals**  
(2-3-3)  
Prerequisite: C or better in ECE 322.  
A study of the basic principles related to the design and interfacing of microcomputer systems. Designing microprocessor based CPU modules, EPROM, SRAM, and DRAM memory interfaces. Address decoding techniques, timing requirements, adding wait states for slow memory systems. Concepts related to parallel I/O, serial I/O, and Programmed I/O. Introduction to hardware interrupts and DMA. Embedded systems. Experiments and design projects related to digital logic circuits, microprocessors, programming, and interfacing are an important part of the course.

**ECE 340. Electromagnetic Applications**  
(3-0-3)  
Prerequisites: PHY 162, C or better in EGR 245.  
Applications of electromagnetic field theory and principles to the design of modern electronic systems. Emphasis on applications in high-frequency analog and high-speed digital systems. Time-varying fields and Maxwell's equations, uniform plane waves, transmission lines, microwaves, and antennas.

**ECE 341. Electromagnetic Field Theory**  
(3-0-3)  
Prerequisite: PHY 162.  
Corequisite: MAT 293.  
An introduction to the theory of electromagnetic fields with emphasis on time-varying applications. Vector calculus, Maxwell's equations, uniform plane waves, transmission lines, microwaves, and antennas.

**ECE 410/510*. Analog Filter Design**  
(3-0-3)  
Prerequisites: C or better in ECE 202, C or better in ECE 311.  
Principles of active and passive filter design, simulation, and realization. Design and implementation of lowpass, highpass, bandpass, and notch filters. Butterworth, Chebyshev, and elliptic filter design.

**ECE 411/511*. Power Electronics**  
(3-0-3)  
Prerequisite: C or better in ECE 312.  
Principles of diode rectifiers and controlled rectifiers, inverters, voltage regulators and large-signal discrete and integrated-circuit power amplifiers.
ECE 424/524*. Digital Design with VHDL (3-0-3)
Prerequisite: C or better in ECE 322.
VHDL is introduced as a hardware design language for the design of large scale digital systems. Specific targets include FPGA, MACH, and other VLSI programmable chips.

ECE 425/525*. Introduction to Computer Architecture (3-0-3)
Prerequisite: C or better in ECE 323.
Concepts of computer architecture including pipelining, cache memory, memory management, disk management systems, computer arithmetic, and instruction set architecture. Design of microprogrammed and hardwared controllers.

ECE 428/528*. Embedded Computer Systems (3-3-4)
Prerequisites: C or better in ECE 323 and C or better in ECE 424.
Design of computer systems as components of larger engineering systems. Emphasis is on real-time applications. Integration of high-level and low-level software components in a real-time environment. The course will emphasize applications which involve hard deadlines for real-time data handling and real-time control of physical systems with a significant lab component.

ECE 431/531*. Analog and Digital Signal Processing (3-0-3)
Prerequisite: C or better in ECE 202.
Fundamentals of signal processing in both analog and digital domains, emphasizing the relationships between the two. Review of Fourier analysis and Bode plot. Analog filter design techniques: Butterworth, Chebyshev, and elliptic; implementation of analog filters using active circuits. Sampling and mapping of analog frequency to digital frequency. Basic topics in digital signal processing: difference equations, impulse response, z transform, IIR and FIR digital filters, discrete-time frequency response.

ECE 432/532*. Digital Signal Processing (3-0-3)
Prerequisite: C or better in ECE 431.
Z-transform, design of frequency-selective digital filters (Butterworth, Chebyshev, and elliptic), filter structures, transient and steady-state response of filters, DFT, FFT, windowing effects, frequency resolution. Use of Matlab and Simulink to implement and analyze digital filters.

ECE 435/535*. Introduction to Data Compression (3-0-3)
Prerequisite: C or better in ECE 431 or consent of the instructor.
Mathematics and techniques for common methods of both lossless and lossy compression of digital data: compression of one-dimensional and two-dimensional signals; Huffman and Tunstall codes; quantization; predictive coding; transform coding; sub-band coding.

ECE 441/541*. Fiber Optic Communications (3-0-3)
Prerequisite: C or better in ECE 341.
Introduction to optics and optical systems as applied to modern engineering problems. Principles and applications of fiber optic communication systems. Optical communications channel design. Fiber optic sensing. Optic fiber waveguides. Traveling-wave amplification and optical resonators (Lasers).

ECE 442/542*. Electromagnetic Compatibility (3-0-3)
Prerequisite: C or better in ECE 340.
Design of electronic systems to prevent interference and to satisfy governmental regulations on radiated and conducted emissions. Interference scenarios, EMC requirements on electronic systems, non-ideal behavior of components, signal spectra, radiated emissions, conducted emissions, crosstalk, shielding.
ECE 443/543*. Antenna Theory (3-0-3)
Prerequisite: C or better in ECE 340.
Introduction to the theory and applications of antennas. Antenna fundamentals, patterns, directivity, gain, impedance, polarization. Electrically small dipoles and loops, arrays, line sources, resonant antennas, and broadband antennas.

ECE 445/545*. Transmission Lines (3-0-3)
Prerequisite: C or better in ECE 340.
Advanced study of transmission line theory in the design of high-frequency analog and high-speed digital system. Emphasis on electrically-long lines. Signal integrity in high-speed digital interconnects, crosstalk in multi-conductor transmission lines. Extensive use of computer simulation tools.

ECE 451/551*. Communication Systems I (3-0-3)
Prerequisites: C or better in ECE 202, EGR 252.
Corequisite: ECE 451L.
Review of Fourier analysis, linear channels, and linear distortion, linear modulation schemes, DSBTC, DSBSC, SSB, VSB, frequency and phase modulation, radio broadcasting, discrete probability, random variables, probability distribution functions, expected values and correlation.

ECE 451L. Communications Lab (0-3-1)
Corequisite: ECE 451.
Software and hardware tools for communication/telecommunication systems experimentation and design, RF system design for communications, simulation of complex communication links.

ECE 452/552*. Communication Systems II (3-0-3)
Prerequisite: C or better in ECE 451 or consent of instructor.
Stochastic processes, stationary and ergodic processes, autocorrelation function and power spectral density, linear channels and random input, white noise and AWGN channels, sampling theorem and pulse code modulation, Nyquist criteria, binary modulation schemes and their performance in AWGN channels, coherent and noncoherent detection.

ECE 455/555*. Computer Networks (3-0-3)
Prerequisite: C or better in ECE 323.

ECE 461/561*. Feedback Control Systems: Digital Control (3-0-3)
Prerequisite: C or better in EGR 386.
Control system analysis and design with emphasis on digital controllers and additional topics include multi-input/multi-output systems and non-linear controllers.

ECE 471/571*. Power Systems Fundamentals (3-0-3)
Prerequisites: C or better in ECE 202, C or better in EGR 245.
Basic power system analytical concepts, three-phase systems, phasors, impedances, steady-state network analysis, normalization, transmission lines, transformers, synchronous machines, power flow.

ECE 480. Introduction to Senior Design -
Electrical Specialization (0-1-0)
Corequisites: TCO 341, ECE 311, ECE 323, and EGR 386.
Course will provide guidance for the selection of team members and topic for the senior design project to be completed in ECE 487 and ECE 488. To successfully complete the
course, a student must belong to a team (3 to 4 persons) and briefly outline the project goals to be implemented in ECE 487 and ECE 488. A seminar series will be conducted to facilitate student introduction to potential industrial clients and projects. Seminar attendance is required to obtain a satisfactory course grade. This course is graded S/U.

**ECE 481. Introduction to Senior Design - Computer Specialization**

Corequisites: TCO 341, ECE 202, ECE 323, EGR 386, and CSC 205. Course will provide guidance for the selection of team members and topic for the senior design project to be completed in ECE 485 and ECE 486. To successfully complete the course, a student must belong to a team (3 to 4 persons) and briefly outline the project goals to be implemented in ECE 485 and ECE 486. A seminar series will be conducted to facilitate student introduction to potential industrial clients and projects. Seminar attendance is required to obtain a satisfactory course grade. This course is graded S/U.

**ECE 485. Engineering Design Exhibit I - Computer Specialization**

(0-6-2)

Prerequisites: TCO 341, ECE 202, ECE 323, ECE 481, EGR 386, and CSC 205. Must have completed all required 100- and 200-level engineering, mathematics, and science courses. Multi-disciplinary design projects with substantial Computer Engineering content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

**ECE 486. Engineering Design Exhibit II - Computer Specialization**

(0-6-2)

Prerequisite: ECE 485. Continuation of ECE 485 multi-disciplinary design projects with substantial Computer Engineering content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

**ECE 487. Engineering Design Exhibit I - Electrical Specialization**

(0-6-2)

Prerequisites: TCO 341, ECE 311, ECE 323, ECE 480, and EGR 386. Must have completed all required 100- and 200-level engineering, mathematics, and science courses. Multi-disciplinary design projects with substantial ECE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

**ECE 488. Engineering Design Exhibit II - Electrical Specialization**

(0-6-2)

Prerequisite: ECE 487. Continuation of ECE 487 multi-disciplinary design projects with substantial ECE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

SPECIAL COURSES: ECE 491, 492, 493, 498, 499 for variable credit. May be repeated for credit with approval of academic advisor and the Chair of the Electrical and Computer Engineering Department.

**ECE 491-492-493. Special Topics**

(1-6 hours)
Environmental Specialization

Environmental consciousness and sustainable design have surfaced as primary initiatives during the last quarter century. The negative effects of modern society on the earth's natural environment are the result of numerous man-made environmental calamities. The prevention of future environmental accidents, reduction of pollutants into the environment, and clean up of priority containment sites have come to be recognized initiatives in virtually all nations.

Environmental engineers translate physical, chemical, biological, and engineering sciences into processes and systems for the protection of the public's health and safety. Environmental engineers are charged with implementing and designing systems that meet environmental standards and control pollution in water, air, and on land. Environmental engineers consult with regional authorities in the site selection, design, construction, and management of secure landfills; potable water treatment facilities, and wastewater reclamation plants. Environmental engineers assess the danger of groundwater contamination and devise plans to minimize ecological risk. Environmental engineers study atmospheric conditions and the effects of air pollutants on the surrounding community. Environmental engineers recommend process improvements to reduce the amount of spent/utilized industrial waste.

Employment opportunities for environmental engineering graduates are diverse. Major employers include consulting engineering firms, industrial facilities, local, state and federal governments, as well as regulatory agencies.

Academic Requirements for BSE, Environmental Specialization

In addition to the retention, graduation, and academic requirements of Mercer University and the School of Engineering, all environmental specialization students must obtain a grade of C or better in EVE 290, EVE 384, and EVE 405. Also, environmental specialization students must maintain a Mercer grade point average of at least 2.0 in each of the following four course categories that applies toward the Bachelor of Science in Engineering degree: 1) required science and math courses; 2) required general education courses; 3) engineering core courses and; 4) environmental engineering courses and technical electives.

Departmental Honors for BSE, Environmental Specialization

Each year, the engineering faculty in the environmental specialization determines the graduating engineering student in the environmental specialization who has best distinguished himself or herself, and designates this student as the Dr. Robert Rozett Outstanding Engineering Graduate in the Environmental Specialization.

The BSE Curriculum, Environmental Specialization

The goal of the BSE program with environmental specialization is to produce graduates who are prepared for employment in professional practice or for graduate study. The natural environment in itself represents a complex and interactive biological, chemical, and physical system. Moreover, engineering strategies that operate in concert with environmental
systems rely on application of fundamental engineering expertise coupled with specific envi-
nronmental engineering practice. Engineering students in the environmental specialization
study in the basic sciences, mathematics, and traditional engineering so they can apply
engineering analysis and design to environmental systems. Beyond this they study well-
established environmental engineering topics including water and wastewater treatment, air
pollution control, solid waste systems, public health, atmospheric chemistry, and bioremedi-
ration. Hands-on engineering in the environmental specialization is accomplished through
laboratory exercises and experiences. Opportunities for environmental students to deepen
and broaden their technical education exist through several avenues.

Bachelor of Science in Engineering (BSE) Degree Requirements:
Environmental Specialization

1. UNV 101 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .1 hour
2. Engineering Core . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .57 hours
3. General Education Requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .15 hours
4. Other Required Courses outside of EVE . . . . . . . . . . . . . . . . . . . . . . . . . . .14 hours
   CHM 112. General Chemistry II
   MAE 205. Visualization and Graphics
   (Any two of the following courses, 8-hours, is required)
   BIO 205. Introduction to Biology for Engineers
   BIO 211. Introduction to Biology I
   CHM 221. Organic Chemistry I
   CHM 222. Organic Chemistry II
   EES 110. Meteorology
   EES 150. Introduction to Environmental Science
   EES 210. Environmental Geology
   EES 220. Oceanography
   EES 330. Introduction to Geographic Information Systems
5. Required Environmental Engineering (EVE) courses . . . . . . . . . . . . . . . . .39 hours
   EVE 290. Intro to Environmental Engineering
   EVE 290L. Intro to Environmental Engineering Laboratory
   EVE 384. Engineering Hydraulics
   EVE 385. Engineering Hydrology
   EVE 402. Air Pollution Generation and Control
   EVE 403. Atmospheric Chemistry I
   EVE 405. Design and Analysis of Wastewater Systems
   EVE 406. Design and Analysis of Water Systems
   EVE 420. Solid Waste Management
   EVE 430. Bioremediation
   EVE 445L. Senior Environmental Engineering Laboratory
   EVE 480. Introduction to Senior Design
   EVE 486. Public Health
   EVE 487. Engineering Design Exhibit I
   EVE 488. Engineering Design Exhibit II
   EVE 490. Groundwater Hydrology
6. Technical Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 hours
   Technical electives are 300/400 level advanced engineering, science and math
courses chosen by the student with the approval of the student's faculty advisor for
the purpose of providing additional depth in areas of special interest to the student.

Total Semester Hours Required ........................................ 129 hours

Environmental Specialization

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Sophomore Year

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Junior Year

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<td>EVE 405</td>
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<td>Des/Anal/WW Sys</td>
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<td>MAE 205</td>
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<td>Visual and Graphics</td>
<td>Biological/Earth Science</td>
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Senior Year

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<td>EVE 406</td>
<td>EVE 430</td>
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<td>Des/Anal/Water Sys</td>
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<td>EVE 486</td>
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**EVE Courses**

**EVE 290. Introduction to Environmental Engineering (3-0-3)**
Prerequisites: CHM 111 and MAT 191.
An overview of the major topics in environmental engineering, including water quality and treatment, solid and hazardous waste management, and air pollution; mass and energy balance principles; pollutant fate and transport characteristics; ethical implications of global business practices.

**EVE 290L Introduction to Environmental Engineering Laboratory (0-3-1)**
Prerequisites: CHM 111.
An introduction to environmental engineering analyses with emphasis on traditional water and wastewater analyses. Parameters to be measured include: pH; alkalinity; hardness; total solids; suspended solids; dissolved solids; chemical oxygen demand; biochemical oxygen demand; dissolved oxygen, making standard solutions; and microbiological techniques.

**EVE 384. Engineering Hydraulics (3-0-3)**
Prerequisite: EVE 290 or consent of instructor.
Introduction to hydrostatics, fluid motion, continuity, momentum, and energy applications. Applications to pipe networks and hydraulic systems. Modeling of water distribution systems.

**EVE 385. Engineering Hydrology (3-0-3)**
Prerequisite: EVE 290 or consent of instructor.
Precipitation, evaporation, consumptive use, infiltration, flood routing; statistical analysis of hydrological data; introduction to urban drainage design; and modeling of hydrologic systems.

**EVE 402. Air Pollution Generation and Control (3-0-3)**
Prerequisite: EVE 290.
Fundamental concepts including the origin and fate of air pollutants. Basic concepts of atmospheric chemistry and meteorology, atmospheric dispersion phenomena, governmental regulations, emission and air-quality standards. Design of processes and equipment for control of gaseous and particulate emissions. Current issues.

**EVE 403. Atmospheric Chemistry I (3-0-3)**
Prerequisite: EVE 402.
An introduction to atmospheric chemical transformations; atomic structure and chemical bonding; thermodynamics, gas-phase kinetics, and photochemistry; tropospheric processes; stratospheric processes.

**EVE 405. Design and Analysis of Wastewater Systems (3-0-3)**
Prerequisites: EVE 290 and EVE 384.
Analysis and design of wastewater treatment systems beginning with an overview of the sources of water pollution and discussion of wastewater characteristics. Fundamental theory and design of conventional wastewater treatment facilities is presented followed by the principles used to design advanced wastewater treatment facilities.

**EVE 406. Design and Analysis of Water Systems (3-0-3)**
Prerequisites: EVE 290 and EVE 384.
Analysis and design of water treatment systems beginning with an overview of the sources of water and discussion of water quality parameters. Fundamental theory and design of conventional water treatment facilities is presented followed by the principles used to design advanced water treatment facilities.
EVE 420. Solid Waste Management
Prerequisite: CHM 112 and EVE 290.
Chemical, mechanical and biological equipment and instrumentation for the collection, processing and disposal of solid wastes are studied and designed. Federal, state, and local regulations regarding generation and disposal of wastes are covered. Handling and recycling of municipal wastes is emphasized.

EVE 430. Bioremediation
Prerequisite: EVE 405.
Introduction to the underlying microbial physiological/biochemical capabilities responsible for contaminant transformation, mathematical descriptions of biological processes, applications and limitations of microbial reactors, applications and limitations of in-situ bioremediation techniques currently used in field-scale remediation, and current and future directions of bioremediation research and field applications.

EVE 445L. Senior Environmental Engineering Laboratory
Prerequisites: Senior standing; EVE 290L; EVE 405 and EVE 420.
Corequisite: EVE 402.
Laboratory investigation of unit operations and processes in environmental engineering: coagulation, flocculation, settling; biological treatment of wastewater; oxygen transfer kinetics; nitrogen analyses; beer's law; and off-gases analyses. Design, conduct, and analyze experiments using modern techniques, skills, and tools.

EVE 480. Introduction to Senior Design
Corequisites: TCO 341, EVE 405, and EVE 420.
Course will provide guidance for the selection of team members and topic for the senior design project to be completed in EVE 487 and EVE 488. To successfully complete the course, a student must belong to a team (3 to 4 persons) and briefly outline the project goals to be implemented in EVE 487 and EVE 488. A seminar series will be conducted to facilitate student introduction to potential industrial clients and projects. Seminar attendance is required to obtain a satisfactory course grade. This course is graded S/U.

EVE 486. Public Health
Prerequisites: Senior standing, EGR 252, EVE 405, and EVE 420.
Corequisite: EVE 402.
Public health engineering principles for protection against biological and chemical hazards. Introduction to toxicology and epidemiology. Basic risk assessment concepts as applied to water, air borne, and toxic pollutants. Emphasis on major communicable diseases that plague mankind, organisms that cause them, routes of transmission, and engineering control methods. Appropriate control methods, for rural areas and developing countries.

EVE 487. Engineering Design Exhibit I
Prerequisites: TCO 341, EVE 405, EVE 420, and EVE 480. Must have completed all required 100- and 200-level engineering, mathematics, and science courses.
Multi-disciplinary design projects with substantial EVE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

EVE 488. Engineering Design Exhibit II
Prerequisite: EVE 487.
Continuation of EVE 487 multi-disciplinary design projects with substantial EVE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

SCHOOL OF ENGINEERING / 301
EVE 490. Groundwater Hydrology (3-0-3)
Prerequisite: EVE 385.
Fundamental theories and properties of porous media, groundwater movement, geological factors are presented. This course emphasizes development of fundamental governing equations and the determination of aquifer formation constants. The design of production and monitoring wells and the development of aquifer testing plans are introduced.

SPECIAL COURSES: EVE 491, 492, 493, 498, 499 for variable credit. May be repeated for credit with approval of academic advisor and Chair of the Environmental Engineering Department.

EVE 491-492-493. Special Topics (1-6 hours)
EVE 498. Professional Seminar (1-6 hours)
EVE 499. Independent Study (1-6 hours)

Industrial Specialization
Industrial engineering is concerned with the design, improvement, and installation of integrated systems of people, material, information, equipment, and energy. The discipline draws upon specialized knowledge and skills in the mathematical, physical, and social sciences, together with the principles and methods of engineering analysis and design to specify, predict, and evaluate the results to be obtained from such systems.

To a large extent the industrial engineer is a “people” engineer, joining the worker together with the “things” that are designed by engineers from other disciplines such as mechanical and electrical engineering. As a consequence of the need for people skills the Mercer program places a heavy emphasis on working as a team and working on real industrial engineering problems from the neighboring communities. The development of the skill in working with and through other people results in many industrial engineers rising to the top of technical companies through the ranks of management.

The industrial specialization at Mercer draws upon four foundational areas—management science, the application of mathematical techniques to solve management problems; ergonomics, the study and design of the interaction between humans and machines; manufacturing, the design and development of processes and systems to transform inputs to products; and quality, the application of statistical methods and managerial principles to improve the quality of products and services. This broad base provides industrial specialization students at Mercer with a solid and varied background.

Academic Requirement for BSE, Industrial Specialization
In addition to the retention, graduation, and academic requirements of the University and the School of Engineering, the student in the industrial specialization must achieve a grade of C, or better, in EGR 252. A student may not enroll or remain enrolled in a course for which EGR 252 is a pre-requisite without satisfying this requirement. Students must also maintain a grade point average of at least 2.0 in all courses carrying an ISE prefix. Students must complete all required 100 and 200 level engineering, mathematics, and science courses prior to enrolling in ISE 487.

Departmental Honors for BSE, Industrial Specialization
Each year, the faculty in the industrial specialization determines the graduating industrial specialization student who has best distinguished himself or herself and recognizes this student as the Outstanding Engineer Graduate in the Industrial Specialization.
The BSE Curriculum, Industrial Specialization

The industrial specialization undergraduate program prepares graduates to use techniques such as application of probability and statistics, modeling and simulation, and optimization methods to analyze engineering problems. Engineering design in the industrial specialization places special emphasis on factors such as ergonomics, safety, and engineering economics.

Bachelor of Science in Engineering (BSE) Degree Requirements: Industrial Specialization

1. UNV 101 .................................................................1 hour
2. Engineering Core ..................................................61 hours
3. General Education Requirements ................................15 hours
   (ISE Students are strongly encouraged to include ECN 150 or ECN 151 as part of their General Education Requirements.)
4. Required ISE Courses ..........................................46 hours
   ISE 288. Intro. to Industrial Engineering and Mfg. Engineering
   ISE 302. Management Science/Operations Research
   ISE 311. Ergonomics and Work Measurement
   ISE 327. Statistical Process and Quality Control
   ISE 352. Design of Experiments
   ISE 362. Production Planning and Control
   ISE 370. Manufacturing Processes
   ISE 403. Modeling and Simulation
   ISE 412. Introduction to Human Factors Engineering
   ISE 424L. Computer-Assisted Manufacturing Systems Lab
   ISE 460. Facilities Planning and Design
   ISE 480. Introduction to Senior Design
   ISE 482. Industrial Engineering Capstone Design
   ISE 487. Engineering Design Exhibit I
   ISE 488. Engineering Design Exhibit II
   ACC 204. Introductory Financial Accounting
   MAE 205 Visualization and Graphics
   MAE 305L. Manufacturing Practices
5. Technical Electives .............................................6 hours
   An industrial specialization student must take, as an elective, at least one course with an ISE prefix that is not one of the required ISE courses listed above. Acceptable electives may include the following: ISE 427 (Reliability and Quality Assurance), ISE 428 (Quality Engineering), ISE 429 (Robotics), or ISE 491-493 (Special Topics).
   In addition, an industrial specialization student must take one additional professional elective. The student should carefully plan this elective in consultation with his or her advisor. Typically, courses from the Department of Psychology, the Department of Computer Science, the Stetson School of Business and Economics, or the School of Engineering are acceptable professional electives. The student's faculty advisor will provide specific guidance in the selection of a professional elective.

Total Semester Hours Required ..................................129 hours
# Industrial Specialization

## Freshman Year

| Fall Semester | | Spring Semester | | |
|---------------|-------------------|-----------------|-------------------|
| EGR 108       | Professional Practices | EGR 108       | Professional Practices |
| Or            | 3 0 3             | Or             | 3 0 3             |
| EGR 126       | Programming for Engr | EGR 126       | Progr. for Engineers |
| MAT 191       | Calculus I        | 4 0 4          | EGR 107           | Intro to Engr Design |
| CHM 111       | General Chemistry I | 3 3 4          | MAT 192           | Calculus II |
| UNV 101       | Freshman Experience | 1 0 1          | PHY 161           | General Physics I |
| XXX           | Gen Ed I           | 3 0 3          | PHY 121L          | General Physics I Lab |
|               | XXX               | 3 0 3          | Gen Ed II         | 3 0 3             |
|               |                  | 14 3 15        |                  | 15 6 17           |

## Sophomore Year

| Fall Semester | | Spring Semester | | |
|---------------|-------------------|-----------------|-------------------|
| EGR 232       | Statics/Solid Mech | 3 0 3          | EGR 236           | Dynamics |
| EGR 244       | Electrical Fund I  | 3 2 4          | EGR 235           | Thermodynamics |
| MAE 205       | Visualization and Graphics | 0 6 2 | EGR 245           | Electrical Fund II |
| MAT 330       | Intro to Diff Eqns | 3 0 3          | EGR 246L          | Electrical Fund Lab |
| PHY 162       | General Physics II | 3 0 3          | EGR 252           | Prob & Stats for Engr |
| PHY 162L      | General Physics II Lab | 0 3 1 | EGR 312           | Engineering Economy |
|               | ISE 288           | Intro to ISE   | 3 0 3             |
|               |                  | 12 11 16       |                  | 15 6 17           |

## Junior Year

| Fall Semester | | Spring Semester | | |
|---------------|-------------------|-----------------|-------------------|
| ISE 302       | Mgt Science/OR    | 3 0 3          | EGR 386           | Feedback Control |
| ISE 327       | Stat Process & Qual Ctrl | 3 0 3 | ISE 311           | Ergonomic/Work Mst |
| ISE 352       | Design of Experiments | 3 0 3 | ISE 362           | Prod Planning and Ctrl |
| MAE 305L      | Manuf Practises Lab | 0 6 2          | ISE 370           | Mfg. Processes |
| TCO 341       | Technical Communic | 3 0 3          | ISE 480           | Intro to Senior Design |
| XXX           | Gen Ed III        | 3 0 3          | XXX               | Gen Ed IV |
|               |                  | 15 6 17        |                  | 15 1 15           |

## Senior Year

| Fall Semester | | Spring Semester | | |
|---------------|-------------------|-----------------|-------------------|
| ACC 204       | Intro to Financial Acct | 3 0 3 | ISE 460           | Fac Planning & Dsgn |
| ISE 403       | Modeling/Simulation | 3 0 3          | ISE 482           | ISE Capstone Design |
| ISE 412       | Human Factors Engr | 3 0 3          | ISE 488           | Engr Design Exhibit II |
| ISE 424       | Comp Asst Mfg Sys  | 3 0 3          | XXX               | Technical Elective |
| ISE 424L      | CAM Systems Lab    | 0 3 1          | XXX               | Gen Ed V |
| ISE 487       | Engr Design Exhibit | 0 6 2          |                  |                  |
| ISE xxx       | ISE Elective      | 3 0 3          |                  |                  |
|               |                  | 15 9 18        |                  | 12 6 14           |
Master of Science in Engineering in Engineering Management

The increasing demand for technology in today's society creates additional demand for graduate degrees in engineering as the entry level degree for engineering practice. The purpose of the Master of Science in Engineering in Engineering Management degree is to prepare engineers to successfully address supervisory and managerial needs in a technological environment. The Master of Science in Engineering in Engineering Management is designed to enable students to simultaneously obtain a Bachelor of Science in Engineering and a Master of Science in Engineering degree in five years. Thirty additional hours of graduate coursework are required for the Master of Science in Engineering degree. This coursework is integrated throughout the fourth and fifth years of study.

Students who complete the coursework required in the first three years of the bachelor's degree in an engineering program with grades which qualify them for graduate study may apply for admission to the Master of Science in Engineering program. In general, application for admission would be made during the term in which the last of the required courses is taken. Final acceptance into the program will be granted on satisfactory completion of work in progress at the time of application.

For additional details, program requirements, and course descriptions, please refer to the information in the graduate studies section of this catalog.

5 Year BSE/MSE Program

4th Year

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<tr>
<td>ACC 204</td>
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<td>ISE 424 Comp Asst Mfg Sys</td>
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SCHOOL OF ENGINEERING / 305
# ISE Courses

**ISE 288. Introduction to Industrial Engineering and Manufacturing Engineering**  
(0-3-1)  
Prerequisite: Sophomore standing.  
An overview of the concepts important to industrial engineering and manufacturing engineering. Topics include operations research, facility design, quality control, information systems, economic analysis, management concepts, and human factors.

**ISE 302. Management Science/Operations Research**  
(3-0-3)  
Prerequisites: C or better in EGR 252 or permission of instructor, MAT 191 or MAT 141 or equivalent.  
Applications of, and theory behind deterministic models in management science/operations research, including: linear, integer, goal, non-linear and dynamic programming; network models to include the transportation and assignment algorithms, forecasting and decision analysis.

**ISE 311. Ergonomics and Work Measurement**  
(3-0-3)  
Prerequisite: C or better in EGR 252.  
Design and evaluation of tools, work spaces, work methods, and work environments, with an emphasis on industrial environments. Task analysis, time/motion studies, and work sampling. Physiological and biomechanical considerations. Safety engineering.

**ISE 327. Statistical Process and Quality Control**  
(3-0-3)  
Prerequisite: C or better in EGR 252.  
Statistical process control methods for products and services; design of quality assurance systems; control inputs, production processes and outputs. Contributions of Deming and Taguchi.

**ISE 352. Design of Experiments**  
(3-0-3)  
Prerequisite: C or better in EGR 252.  
Advanced model designs (fractional factorials, Latin squares, nested, etc.) Estimation of model parameters and model adequacy checking. Multiple regression. Response surface methodology and Taguchi methods.

**ISE 362. Production Planning and Control**  
(3-0-3)  
Prerequisite: ISE 302.  
Development and application of scheduling and inventory theory; including an introduction to modern manufacturing concepts such as aggregate planning, MRP, JIT, Lean Manufacturing, Theory of Constraints, Continuous Improvement, etc.

**ISE 370. Manufacturing Processes**  
(3-0-3)  
Prerequisites: EGR 312 or equivalent, C or better in EGR 252 or equivalent. Pre/corequisite: MAE 305L or permission of instructor.  
Introduction to manufacturing systems. Manufacturing processes: casting, metal cutting, welding and joining processes, and plastic materials and processes. Introduction to geometric dimensioning and tolerancing, metrology and testing, numerical control, and process automation. Integrated laboratory assignments.

**ISE 403. Modeling and Simulation**  
(3-0-3)  
Prerequisites: C or better in EGR 252.  
Applications of and theory behind queuing models and the application of discrete event simulation to model service and manufacturing systems.
ISE 412. Human Factors Engineering (3-0-3)
Prerequisite: ISE 311.
Human-machine systems modeling and design for human interaction with complex systems such as nuclear power plants, aircraft, and automated manufacturing systems. Models of human information processing, perception, memory, decision making and error generation. Design of interfaces for complex systems, including human-computer interfaces.

ISE 424. Computer Assisted Manufacturing Systems (3-0-3)
Prerequisite: ISE 370.
Introduction to computer assisted manufacturing, product specification, geometric tolerancing, and computer-aided design. Geometric modeling, process engineering, and tooling and fixturing. Programmable logic controllers. Data communication and LANs in manufacturing. Fundamentals of numerical control and numerical control programming. Rapid prototyping and industrial robotics.

ISE 424L. Computer Assisted Manufacturing Systems Lab (0-3-1)
Corequisites: ISE 424
Laboratory work involving CAE and CAD/CAM integration. CNC machining operations, numerically controlled devices, and robots. Measurements using coordinate measuring machine(CMM). Use of G-codes and one or more commercially available CAD/CAM software packages. Projects illustrating computer aided design and manufacturing, programming robots, and design of work cells.

ISE 427. Reliability and Quality Assurance (3-0-3)
Prerequisite: ISE 327.
Design and management of reliability programs and quality assurance systems; mathematics of reliability.

ISE 428. Quality Engineering (3-0-3)
Prerequisite: IDM 355 or ISE 327.

ISE 429. Robotics (3-0-3)
Prerequisite: ISE 370 or permission of instructor.
Introduction to robotics. Robot arm kinematics and dynamics. Trajectory planning and control of robot manipulators. Sensing and vision capabilities of robots. Robot programming languages. Robot intelligence and task planning. Integrated laboratory assignments.

ISE 460. Facilities Planning and Design (3-0-3)
Prerequisite: ISE 370.
Corequisite: ISE 403.
Comprehensive design of industrial production systems. Determination of requirements, generation and evaluation of alternatives, process design, materials handling, and location analysis.

ISE 480. Introduction to Senior Design (0-1-0)
Corequisites: TCO 341, ISE 302, ISE 311, ISE 327, and ISE 370.
Course will provide guidance for the selection of team members and topic for the senior design project to be completed in ISE 487 and ISE 488. To successfully complete the course, a student must belong to a team (3 to 4 persons) and briefly outline the project goals to be implemented in ISE 487 and ISE 488. A seminar series will be conducted to facilitate...
student introduction to potential industrial clients and projects. Seminar attendance is required to obtain a satisfactory course grade. This course is graded S/U.

**ISE 482. Industrial Engineering Capstone Design Experience (3-0-3)**
Prerequisites: TCO 341, ISE 302, ISE 311, ISE 327, and ISE 370.
Corequisites: ISE 403 and ISE 424.
Synthesis and integration of the common techniques and methods of industrial engineering to solve "real" world or "quasi-real" world problems. Emphasis on team solutions and communications.

**ISE 487. Engineering Design Exhibit I (0-6-2)**
Prerequisites: TCO 341, ISE 302, ISE 311, ISE 327, ISE 370, and ISE 480. Must have completed all required 100- and 200-level engineering, mathematics, and science courses.
Corequisites: ISE 403 and ISE 424.
Multi-disciplinary design projects with substantial ISE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

**ISE 488. Engineering Design Exhibit II (0-6-2)**
Prerequisite: ISE 487.
Continuation of ISE 487 multi-disciplinary design projects with substantial ISE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

SPECIAL COURSES: ISE 491, 492, 493, 498, 499 for variable credit. May be repeated for credit with approval of academic advisor and Chair of the Industrial Engineering and Industrial Management Department.

**ISE 491-492-493. Special Topics (1-6 hours)**

**ISE 498. Professional Seminar (1-6 hours)**

**ISE 499. Independent Study (1-6 hours)**

**Mechanical Specialization**

Mechanical engineering involves the practical application of engineering science and design to areas as diverse as the generation, conversion, transmission, and use of thermal and mechanical energy; the production of tools, machines, and consumer products; the design and optimization of mechanical, thermodynamic, and fluid systems; and materials selection and processing. It is virtually impossible to name a manufactured product that has not been touched in some way by a mechanical engineer. Research, design, production, operation, administration, and economics are functional aspects of mechanical engineering. Mechanical engineers are responsible for the design and application of transportation systems, medical devices, automated manufacturing systems, robotics, power generation, cooling of electronic components, and automatic control systems. Within the broad scope of these systems, the mechanical engineer is concerned with a challenging and diverse array of design and development problems.

In modern society, mechanical engineers must extend their interest beyond the strictly technical aspects of their positions to include economic, safety, ethical, and environmental considerations. Today’s mechanical engineers must be creative problem solvers with a broad scope of capabilities—including the ability to communicate their ideas effectively.
Academic Requirements for BSE, Mechanical Specialization

The student choosing the mechanical specialization must satisfy all of the retention, graduation, and academic requirements of the University and the School of Engineering. In addition, the student must achieve grades of C or better in EGR 232 (Statics/Solid Mechanics), EGR 235 (Thermodynamics) and EGR 236 (Dynamics). A student may not enroll or remain enrolled in a course for which one of these courses is a prerequisite without satisfying this requirement. Students must also maintain a minimum cumulative grade point average of 2.0 in courses with the MAE prefix. Mechanical specialization students must complete all required 200-level and 300-level MAE courses (except MAE 302L) and all required 100 and 200 level engineering, mathematics, and science courses before enrolling in Senior Design (MAE 487).

Departmental Honors for BSE, Mechanical Specialization

Each year, the engineering faculty in the mechanical specialization determines the graduating mechanical specialization student who has best distinguished himself or herself and recognizes this student as the Outstanding Engineering Graduate in the Mechanical Specialization.

The BSE Curriculum, Mechanical Specialization

The undergraduate curriculum covers the fundamentals of engineering, emphasizes basic principles, and educates the student in the use of these principles to reach optimal design solutions for engineering problems. Successful completion of this curriculum prepares the student for a career in one of the many phases of practice as a mechanical engineer, or for advanced education in graduate school.

Bachelor of Science in Engineering (BSE) Degree Requirements: Mechanical Specialization

1. UNV 101 .......................................................................................... 1 hour
2. Engineering Core ........................................................................... 61 hours
3. Additional Mathematics ................................................................. 3 hours
   MAT 293. Multivariable Calculus
4. General Education Requirements .................................................... 15 hours
5. Required MAE Courses ................................................................. 40 hours
   MAE 205. Visualization and Graphics
   MAE 302L. Mechanical Engineering Laboratory I
   MAE 305L. Manufacturing Practices
   MAE 310. Engineering Analysis for Mechanical Engineers
   MAE 320. Solid Mechanics
   MAE 322. Machine Design
   MAE 330. Fluid Mechanics
   MAE 335. Thermodynamics II
   MAE 362. Structure and Properties of Materials
   MAE 402L. Mechanical Engineering Laboratory II
   MAE 422. Dynamics of Mechanical Systems
   MAE 430. Heat Transfer
   MAE 435. Thermal Systems Analysis
   MAE 460. Engineering Materials
   MAE 480. Introduction to Senior Design
This specialization requires nine hours of technical elective courses, chosen by the student with the approval of the student's faculty advisor. The student must take at least six hours in MAE technical electives. The remaining technical elective hours can be satisfied by any non-required 300-level or 400-level course in BME, ECE, EGR, EVE, ISE, MAE, CHM, CSC, MAT, or PHY.

**Mechanical Specialization**

### Freshman Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGR 108 Professional Practices</td>
<td>EGR 108 Professional Practices</td>
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<tr>
<td>Or EGR 126 Programming for Engr</td>
<td>Or EGR 126 Programming for Engr</td>
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<tr>
<td>MAT 191 Calculus I</td>
<td>EGR 107 Intro to Engr Design</td>
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<tr>
<td>CHM 111 General Chemistry I</td>
<td>MAT 192 Calculus II</td>
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<td>UNV 101 Freshman Experience</td>
<td>PHY 161 General Physics I</td>
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<td>PHY 121 General Physics I Lab</td>
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### Sophomore Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
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<tbody>
<tr>
<td>EGR 232 Statics/Solid Mech</td>
<td>EGR 236 Dynamics</td>
</tr>
<tr>
<td>EGR 244 Electrical Fund I</td>
<td>EGR 235 Thermodynamics</td>
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<td>MAT 330 Intro to Diff Eqns</td>
<td>EGR 245 Electrical Fund II</td>
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<td>PHY 162L General Physics II Lab</td>
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### Junior Year

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<tbody>
<tr>
<td>MAE 305L Manuf Practices Lab</td>
<td>EGR 312 Engineering Economy</td>
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<tr>
<td>MAE 310 Engr Analysis for ME</td>
<td>EGR 386 Feedback Control</td>
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<td>MAE 320 Solid Mechanics II</td>
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<td>MAE 322 Machine Design</td>
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<td>MAE 335 Thermodynamics II</td>
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<td>TCO 341 Technical Communication</td>
<td>MAE 430 Heat Transfer</td>
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<td>MAE 480 Intro to Senior Design</td>
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Total Semester Hours Required: 129 hours
### Senior Year

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<th>Spring Semester</th>
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<tbody>
<tr>
<td>MAE 402L Mech Engr Lab II</td>
<td>0 3 1 MAE 422 Dyn of Mech Systems 3 0 3</td>
</tr>
<tr>
<td>MAE 435 Thermal Sys Analysis</td>
<td>3 0 3 MAE 488 Engr Design Exhibit II 0 6 2</td>
</tr>
<tr>
<td>MAE 460 Engineering Materials</td>
<td>2 0 2 MAE 4XX Technical Elective 3 0 3</td>
</tr>
<tr>
<td>MAE 487 Engr Design Exhibit II</td>
<td>0 6 2 XXX Technical Elective 3 0 3</td>
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<tr>
<td>MAE 4XX Technical Elective</td>
<td>3 0 3 XXX Gen Ed V 3 0 3</td>
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<tr>
<td>XXX Gen Ed IV</td>
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### Integrated Bachelor of Science in Engineering/
Master of Science in Engineering in Mechanical Engineering

Students who complete the first three years of the Bachelor of Science in Engineering with a Mechanical Specialization with grades which qualify them for graduate study may directly pursue the Master of Science in Engineering during their fourth and fifth years of study. A full calendar year, including one additional summer term, is needed to complete the Master of Science in Engineering in Mechanical Engineering degree. See the graduate studies section near the back of this catalog for more information about the master of science in engineering programs.

#### Senior Year (Integrated Bachelor of Science in Engineering/
Master of Science in Engineering students only)

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tr>
<td>MAE 402L Mech Engr Lab II</td>
<td>0 3 1 MAE 422 Dyn of Mech Systems 3 0 3</td>
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<tr>
<td>MAE 600 Engineering Materials</td>
<td>2 0 2 MAE 480 Intro to Senior Design 0 1 0</td>
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<tr>
<td>EGR XXX Graduate Course</td>
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### Summer Semester (Integrated BSE/MSE students only)

| MAE 6XX Graduate Course | 3 0 3 |
|                        | 3 0 3 |

### Graduate Year (Integrated BSE/MSE students only)

<table>
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<tr>
<td>MAE 435 Thermal Sys Analysis</td>
<td>3 0 3 MAE 488 Engr Design Exhibit II 0 6 2</td>
</tr>
<tr>
<td>MAE 487 Engr Design Exhibit I</td>
<td>0 6 2 MAE 4XX Technical Elective 3 0 3</td>
</tr>
<tr>
<td>MAE 4XX Technical Elective</td>
<td>3 0 3 XXX 4XX Technical Elective 3 0 3</td>
</tr>
<tr>
<td>MAE 6XX Graduate Course</td>
<td>3 0 3 MAE 6XX Graduate Course 3 0 3</td>
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<tr>
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<td>3 0 3 EGR XXX Graduate Course 3 0 3</td>
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<tr>
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<td>12 6 14</td>
</tr>
</tbody>
</table>

### Summer Semester (Integrated BSE/MSE students only)

| MAE 6XX Graduate Course | 3 0 3 |
|                        | 3 0 3 |

See the graduate section of this catalog for more information about the Integrated Bachelor of Science in Engineering/Master of Science in Engineering Program.
### MAE Courses

**MAE 205. Visualization and Graphics (0-6-2)**
An introduction to engineering graphics and component visualization. Sketching, line drawing, an introduction to computer assisted drafting. Use of drawings in a manufacturing environment.

**MAE 302L. Mechanical Engineering Laboratory I (1-3-2)**
Prerequisites: EGR 252, MAE 320, MAE 335. Corequisite: MAE 430.
Application of basic measurement techniques and instrumentation to the experimental investigation of mechanical engineering systems-refrigeration systems, flow and heat transfer devices, and mechanical systems. Identification of experimental objectives, planning of experimental processes and procedures, collection and evaluation of experimental data, and analysis of experimental results. Reports of experimental investigation, including descriptions of study objectives, procedures and methods, analysis methods, results, and conclusions.

**MAE 305L. Manufacturing Practices (0-6-2)**
Prerequisites: PHY 141 (IDM majors) or EGR 232 (MAE specialization: C or better), MAE 205.
Theory and applications of metal working machinery. Industrial safety. Engineering and technological aspects of joining operations. Interpretation of engineering drawings. Introduction to design of simple jigs and fixtures.

**MAE 310. Engineering Analysis for Mechanical Engineers (3-0-3)**
Prerequisites: EGR 126, MAT 293, MAT 330.
Introduction to the solution of partial differential equations and numerical methods in mechanical engineering. Separation of variables, root finding, systems of simultaneous equations, numerical integration, matrix methods, finite difference methods.

**MAE 320. Solid Mechanics II (3-0-3)**
Prerequisites: C or better in EGR 232, MAT 192.
Stress, strain, axial deformation of statically determinate and indeterminate systems. Generalized Hooke’s Law. Torsion, beam bending, shear stresses in beams, stress and strain transformation, beam deflections. Energy methods. Static and fatigue failure theories. Design of structural members: beams, columns, etc.

**MAE 322. Machine Design (3-0-3)**
Prerequisites: C or better in EGR 232, C or better in EGR 236, MAE 320.
Application of the principles of solid mechanics, materials science, and statistics to the design and analysis of specific machine components such as screws, bearings, gears, welded joints, springs, etc.

**MAE 330. Fluid Mechanics (3-0-3)**
Prerequisites: C or better in EGR 235 and EGR 236, MAT 293, MAT 330.

**MAE 335. Thermodynamics II (3-0-3)**
Prerequisite: C or better in EGR 235.
Corequisite: MAT 293.
Second law analysis. Power and refrigeration cycles. Application of basic principles to engi-
neering problems involving ideal gas mixtures, psychrometrics, real gas mixtures, and combustion.

**MAE 362. Structure and Properties of Materials** (3-0-3)
Prerequisites: CHM 111, MAT 330.
Mechanical behavior of materials, atomic concepts, properties of crystalline and non crystalline solids. Materials in design.

**MAE 402L. Mechanical Engineering Laboratory II** (0-3-1)
Prerequisites: MAE 330, MAE 302L.
Corequisites: MAE 430, MAE 460.
Design of experiments. Multiple experimental projects focused on analysis of materials and materials processing, thermal systems, and/or mechanical systems.

**MAE 406. Introduction to Finite Element Analysis** (3-0-3)
Prerequisites: MAE 310, MAE 320.

**MAE 422. Dynamics of Mechanical Systems** (3-0-3)
Prerequisites: C or better in EGR 236, MAE 310.
Three dimensional kinematics of rigid bodies. Three dimensional kinetics of rigid bodies: force and acceleration. Vibrations. Design of systems to produce different types of motion.

**MAE 425. Vibrations** (3-0-3)
Prerequisites: C or better in EGR 236, MAT 330.
Elements of vibrating systems. One degree of freedom systems: free and forced, and damped and undamped. Multi-degree of freedom systems: free and forced, and damped and undamped. Vibration of continuous systems. Design of vibration systems.

**MAE 427. Solid Mechanics III** (3-0-3)
Prerequisites: MAE 310, MAE 320.
Three dimensional stress at a point, compatibility equations, strain energy, plane stress, plane strain, mechanical behavior of materials, beam bending, torsion of prismatic bars, elastic foundations, elastic stability, energy methods.

**MAE 430. Heat Transfer** (3-0-3)
Prerequisites: MAT 330, C or better in EGR 235, MAE 310, MAE 330.

**MAE 435. Thermal Systems Analysis** (3-0-3)
Prerequisites: MAE 330, MAE 335, MAE 430.
Introduction to heat exchangers and heat exchanger design. Design and optimization of thermal systems, including modeling, simulation, and economics. Component design. Examples from power generation systems, heat exchanger/ recovery, HVAC.

**MAE 436. Turbomachinery** (3-0-3)
Prerequisites: MAE 330, MAE 335.
MAE 437. Internal Combustion Engines (3-0-3)
Prerequisite: MAE 335.

MAE 439. Heating, Ventilation, and Air Conditioning Design (3-0-3)
Prerequisites: MAE 335, MAE 430.

MAE 444. Flight Structures (3-0-3)
Prerequisite: MAE 320.
Loads, fatigue, minimum weight design, stress analysis of semi-monocoque structures, and design of members in tension, bending, and torsion.

MAE 460. Engineering Materials (2-0-2)
Prerequisite: MAE 362.
Corequisites: MAE 402L, MAE 430.
Engineering applications of irons, steels and other metals. Properties and uses of plastics and composites. Materials selection for mechanical designs.

MAE 480. Introduction to Senior Design (0-1-0)
Corequisites: TCO 341, MAE 305L, MAE 322, MAE 335, and MAE 362.
Course will provide guidance for the selection of team members and topic for the senior design project to be completed in MAE 487 and MAE 488. To successfully complete the course, a student must belong to a team (3 to 4 persons) and briefly outline the project goals to be implemented in MAE 487 and MAE 488. A seminar series will be conducted to facilitate student introduction to potential industrial clients and projects. Seminar attendance is required to obtain a satisfactory course grade. This course is graded S/U.

MAE 487. Engineering Design Exhibit I (0-6-2)
Prerequisites: TCO 341, MAE 305L, MAE 322, MAE 335, MAE 362, and MAE 480. Must have completed all 100- and 200-level engineering, mathematics, and science courses.
Corequisites: MAE 302L, MAE 430.
Multi-disciplinary design projects with substantial MAE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

MAE 488. Engineering Design Exhibit II (0-6-2)
Prerequisite: MAE 487.
Continuation of MAE 487 multi-disciplinary design projects with substantial MAE content. Small groups design, build, and test realistic engineering systems under faculty supervision. Projects include safety, economic, environmental, and ethical considerations and require written and oral reports.

SPECIAL COURSES: MAE 491, 492, 493, 498, 499 for variable credit. May be repeated for credit with approval of academic advisor and the Chair of the Mechanical Engineering Department.

MAE 491-492-493. Special Topics (1-6 hours)
MAE 498. Professional Seminar (1-6 hours)
MAE 499. Independent Study (1-6 hours)
Bachelor of Science Degree Program

Students who wish to pursue a liberal education with strong emphasis on engineering topical areas may pursue one of two Bachelor of Science degree programs in the School of Engineering. Graduates of these programs are prepared to pursue engineering related careers or to pursue advanced degrees that require a strong foundation in the sciences. These programs are not accredited as engineering programs and graduates are not qualified to become licensed as professional engineers.

The following majors are available: Industrial Management and Technical Communication. Curricula and requirements for each of these majors are presented later in this document.

Industrial Management

Today's business world requires managers who are knowledgeable of and comfortable with technology. This is true not only in manufacturing but also in service industries such as banking, hospital management, and a host of others that are increasingly turning toward the use of the computer and other tools to manage.

To meet these needs the School of Engineering, in cooperation with the Stetson School of Business and Economics and the Department of Psychology of the College of Liberal Arts, has designed the Bachelor of Science (BS) in Industrial Management degree program. The program produces graduates who are skilled in "traditional" managerial disciplines such as accounting and finance and, in addition, are adept at applying a number of engineering tools to management decisions. This program appeals to students who like mathematics but are not interested in the entire rigor of an engineering program. These students also prefer more emphasis on quantitative approaches than is generally found in a business program. One should realize that this is not an engineering program, and, in general, graduates would not be able to pursue a graduate degree in engineering or secure a license as a professional engineer.

The main areas of emphasis in the program are: psychology, quantitative methods of management, economics, accounting, and management information systems. This basic foundation will allow the graduate to advance successfully through the ranks of management in any company that is technology driven.

Academic Requirements for BS, Industrial Management Major

In addition to the retention, graduation, and academic requirements of the University and the School of Engineering, the industrial management student must achieve a grade of C or better in ECN 150, ECN 151, EGR 252, PSY 101, PSY 235, and a grade point average in excess of 2.0 for all IDM and ISE courses.

Departmental Honors for BS, Industrial Management Major

Each year, the industrial management faculty determines the graduating industrial management student who has best distinguished himself or herself and recognizes this student as the Outstanding Graduate in Industrial Management.

The Industrial Management BS Curriculum

The program educational objectives that have been established for the Bachelor of Science in Industrial Management are as follows. Graduates are prepared to be practicing managers with the knowledge and skills needed to: (1) identify, formulate, and solve management problems through analysis and design using the principles of science and mathematics, (2) work effectively in a variety of contexts using superior communication skills,
knowledge of contemporary issues with a commitment to professional ethics and lifelong learning, (3) pursue additional graduate or professional education, and (4) participate in their local and global communities though sustaining service and leadership.

The program outcomes that have been established for the Bachelor of Science in Industrial Management are as follows. Students at the time of graduation will know and be able to do the following: (1) apply quantitative techniques to the solution of Management problems, (2) analyze managerial problems in the context of cost accounting and economic theory, (3) apply principles of industrial psychology, (4) design and analyze manufacturing, management, and quality systems, (5) function on interdisciplinary teams, (6) communicate to both specialized and public audiences in a variety of modes, i.e., writing, presentation, etc., (7) relate the practice of industrial management to global contemporary issues, to professional ethics, and to the need for lifelong learning, and (8) contribute to sustaining and improving community.

**Bachelor of Science (BS) Degree Requirements**

**Industrial Management Major**

1. UNV 101. ................................................................. 1 hour
2. Math and Science Foundation ................................. 23 hours
   - EGR 252. Probability and Statistics for Engineers
   - MAT 191. Calculus I
   - CHM 111. General Chemistry I
   - PHY 141. Introductory Physics I
   - PHY 121L. Introductory Physics I Lab
   - 8 hours of MAT and laboratory science courses (BIO, CHM, EES, or PHY).
   - The student should work with his/her advisor to determine the appropriate mix of course work to meet the student's goals. Mathematics courses should be at a level of MAT 133 or above. Credit will not be allowed for both PHY 141 and PHY 161.
3. General Education Requirement ............................. 15 hours
4. Psychology ............................................................... 6 hours
   - PSY 101. Introduction to Psychology
   - PSY 235. Industrial Psychology
5. Management Foundation ........................................... 24 hours
   - BUS 346. The Legal, Ethical, and Regulatory Environment of Business I
   - FIN 362. Principles of Finance
   - IDM 355. Quality Management
   - IDM 404. Industrial Management Case Studies
   - ISE 302. Management Science I/Operations Research
   - MGT 363. Principles of Management
   - MGT 423. Organizational Behavior
   - MKT 361. Principles of Marketing
6. Accounting Foundation ............................................ 6 hours
   - ACC 204. Introduction to Financial Accounting
   - ACC 205. Introduction to Managerial Accounting
7. Economics Foundation ............................................. 6 hours
   - ECN 150. Microeconomics
   - ECN 151. Macroeconomics
8. Computers, Communications, and Engineering .................................................. 24 hours
   EGR 107. Introduction to Engineering Design
   EGR 108. Professional Practices
   EGR 126. Programming for Engineers
   IDM 288. Introduction to Industrial Management & Manufacturing Engineering
   IDM 480. Introduction to Senior Design
   IDM 487. Senior Design Exhibit I
   IDM 488. Senior Design Exhibit II
   ISE 370. Manufacturing Processes
   MAE 205. Visualization and Graphics
   MAE 305L. Manufacturing Practices
   TCO 341. Technical Communication

9. Concentration Areas ..................................................................................... 18 hours
   The student must take a minimum of six hours from each of the concentration areas listed below. Additional courses should be selected based on the student’s interests and career plans. The student should work closely with his/her advisor to select these courses to complete the 18 hour minimum requirement.

   Advanced Management, Accounting, and Economics Concentration
   ACC 3XX/4XX
   BUS 347. Legal, Ethical, and Regulatory Environment of Business II
   BUS 477. Special Topics in Business
   BUS 491. Seminar in Business and Economics
   ECN 3XX/4XX
   FIN 3XX/4XX
   MGT 3XX/4XX (NOTE: Students cannot take both MGT 387 and ISE 362 for credit)
   MKT 3XX/4XX

   Advanced Computers, Communications, and Engineering Concentration
   EGR 482. Engineering Innovation and Creativity
   IDM 470/BUS 349. Management Information Systems
   ISE 4XX.
   ISE 311. Ergonomics and Work Measurement
   ISE 362. Production Planning and Control (NOTE: Students cannot take both MGT 387 and ISE 362 for credit)
   ISE 403. Modeling and Simulation
   ISE 412. Human Factors Engineering
   ISE 427. Reliability and Quality Assurance
   ISE 428. Quality Engineering
   ISE 429. Robotics
   ISE 460. Facilities Planning and Design
   TCO 3XX/4XX.

10. Free Electives ............................................................................................ up to 6 hours
    Students will select additional electives from any of the offerings from the entire University as needed to complete the 129 hours required for graduation.

Total Semester Hours Required ................................................................. 129 hours

SCHOOL OF ENGINEERING / 317
Sample 4-year Curriculum

The Bachelor of Science in Industrial Management degree may be completed in four years. This sample curriculum shows one possible configuration of courses, but will vary according to each student's circumstances.

**Industrial Management**

### Freshman Year

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<th>Spring Semester</th>
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<td>EGR 108</td>
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<tr>
<td>Professional Practice</td>
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<tr>
<td>Programming for Engr</td>
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<td>ECN 150</td>
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<td>Microeconomics</td>
<td>Intro to Engr Design</td>
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<td>MAE 205</td>
<td>PHY 141</td>
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<td>Visual and Graphics</td>
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**Sophomore Year**

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<tr>
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<td>Intro to Managerial Acct</td>
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<tr>
<td>CHM 111</td>
<td>IDM 288</td>
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<tr>
<td>General Chemistry I</td>
<td>Intro to IDM and Mfg</td>
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<tr>
<td>ECN 151</td>
<td>MAE 305L</td>
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<tr>
<td>Macroeconomics</td>
<td>Mfg. Practice Lab</td>
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<td>EGR 252</td>
<td>MGT 363</td>
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<td>Prob. &amp; Stats for Engr</td>
<td>Prin of Management</td>
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**Junior Year**

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<tr>
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<td>FIN 362</td>
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<tr>
<td>Concentration Area</td>
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<td>IDM 355</td>
<td>ISE 370</td>
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<td>Quality Management</td>
<td>Manuf Processes</td>
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<td>ISE 302</td>
<td>IDM 480</td>
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<td>Mgt Science/OR</td>
<td>Intro to Senior Design</td>
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<td>MKT 361</td>
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<td>Principles of Marketing</td>
<td>Concentration Area</td>
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<td>TCO 341</td>
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**Senior Year**

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<tr>
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<td>MGT 423</td>
<td>IDM 404</td>
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<td>IDM Case Studies</td>
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318 / MERCER UNIVERSITY
IDM Courses

IDM 288. Introduction to Industrial Management and Manufacturing (0-3-1)
Prerequisite: Sophomore standing.
An overview of the concepts important to industrial management and manufacturing. Topics include operations research, facility design, manufacturing, quality control, information systems, economic analysis, management concepts, and human factors.

IDM 302. Industrial Management I (3-0-3)
Prerequisite: IDM 288.
Specific problems associated with managing a factory or industrial firm. Establishment of the organization, plant location, layout, facilities of production, employee’s work and wages, control of product quality and cost.

IDM 355. Quality Management (3-0-3)
Prerequisite: C or better in EGR 252 or C or better in MAT 126.
An investigation into the application of quantitative methods and human resources to improve all of the business processes and systems within an organization in order to provide superior customer value. Use of a disciplined approach which integrates fundamental management techniques, existing improvement efforts, and technical tools to achieve customer focus, total participation, and continual improvement over a wide range of applicability.

IDM 404. Industrial Management Case Studies (3-0-3)
Prerequisites: IDM 355, ISE 302, and ISE 370.
Systematic problem solving utilizing actual and theoretical cases involving all areas of management and production. Detailed oral and written presentations.

IDM 407. Plant Development (3-0-3)
Prerequisite: IDM 302.
Plant design and layout procedures; materials handling analysis, equipment arrangements and line-balancing requirements.

IDM 409. Manufacturing Scheduling and Control (3-0-3)
Prerequisite: IDM 407.
The design of scheduling systems for various levels of production to meet aggregate demand for products and services. Lecture and case studies.

IDM 410. Safety Programs and Administration (3-0-3)
Prerequisite: Junior standing.
Elements of administering a comprehensive hazards control program: management controls, hazard recognition, accident prevention, work environments and OSHA regulations.

IDM 414. Industrial Safety (3-0-3)
Prerequisite: IDM 410.
Industrial safety management and administration including economic factors such as direct and indirect costs, workmen's compensation, accident prevention. Survey of safety regulations and programs.

IDM 470. Management Information Systems I (3-0-3)
Prerequisite: EGR 126.
Analysis and synthesis of computer-based information systems emphasizing a management approach. Planning, development, implementation, operation, evaluation, and control phases of the MIS life cycle.
IDM 480. Introduction to Senior Design (0-1-0)
Corequisites: TCO 341, IDM 355, ISE 302, and ISE 370.
Course will provide guidance for the selection of team members and topic for the senior design project to be completed in IDM 487 and IDM 488. To successfully complete the course, a student must belong to a team (3 to 4 persons) and briefly outline the project goals to be implemented in IDM 487 and IDM 488. A seminar series will be conducted to facilitate student introduction to potential industrial clients and projects. Seminar attendance is required to obtain a satisfactory course grade. This course is graded S/U.

IDM 487. Senior Design Exhibit I (0-6-2)
Prerequisites: TCO 341, IDM 355, IDM 480, ISE 302, and ISE 370. Must have completed all 100- and 200-level engineering, mathematics, and science courses.
Corequisite: ISE 403.
Project design of a manufacturing facility encompassing market analysis, budget development, plant requirements and layout, production equipment, and work-force analysis. Oral and written presentations.

IDM 488. Senior Design Exhibit II (0-6-2)
Prerequisite: IDM 487.
Continuation of IDM 487 with project design of a manufacturing facility encompassing market analysis, budget development, plant requirements and layout, production equipment, and work-force analysis. Oral and written presentations.

SPECIAL COURSES: IDM 491, 492, 493, 498, 499 for variable credit. May be repeated for credit with permission of advisor and the Chair of the Industrial Engineering and Industrial Management Department.

IDM 491-492-493. Special Topics (1-4 hours)
IDM 498. Processional Seminar (1-4 hours)
IDM 499. Independent Study (1-4 hours)

Technical Communication

Technical communication is a relatively new professional field of study that is gaining prominence as society becomes more and more immersed in technology. Technical communicators serve as information architects; as translators of technical information for non-specialist users; as bridges between people in different businesses, cultures, or disciplines; and as user advocates on design teams. They are skilled in writing, speaking, designing documents, using advanced information technologies, working with people, and solving complex problems of communicating information using technology.

The Bachelor of Science (BS) in Technical Communication degree program draws upon the resources of several disciplines to provide a foundation in sciences, mathematics and technology, together with strong emphasis on communication skills. This program enables students to enter a wide variety of career fields. The technical communication degree program emphasizes mastery of the theoretical, rhetorical background of communication, while providing practical, hands-on experience. In the same way that engineering applies the principles of mathematics and science to real-world problems, so technical communication applies the principles of communication to real-world problems in technical settings.

Graduates are well prepared for entry-level positions in technical writing and editing, documentation, publications design management, advertising and marketing for technical fields, training, web design, instructional design, and many others. Majors are encouraged to join professional organizations, such as Mercer's Student Chapter of the Society for
Technical Communication. A number of graduate programs in technical communication are available for advanced study, including Mercer’s Master of Science in Technical Communication Management, offered via distance learning.

Students are encouraged to enter internships for practical experience, and they are expected to work as members of design teams at several levels. Students may, by careful planning, earn a major both in technical communication and in another discipline.

The minor in technical communication provides an attractive component for many degree programs (see description below).

Technical communication courses are open to any students, regardless of their college or major, who have the prerequisites and/or appropriate experience.

Academic Requirements for BS, Technical Communication Major

In addition to the general academic requirements of the University and the School of Engineering, technical communication students must maintain a grade point average of at least 2.0 in all courses carrying a TCO prefix or counted as part of the TCO major.

Departmental Honors for BS, Technical Communication Major

Each year, the technical communication faculty determines the graduating technical communication student who has best distinguished himself or herself academically and whose undergraduate career best exemplifies the standards of the profession, and recognizes this student as the Outstanding Graduate in Technical Communication.

TCO Scholarships

The Jeffrey Mavro TCO Scholarship provides financial awards for selected Undergraduates majoring in Technical Communication. Consult University Admissions or the Technical Communication Department Program Director for more information.

The David C. Leonard Scholarship provides funds for selected graduate students in the Master of Science Program. Consult the department Program Director for information, or see www.mercer.edu/mstco.

The Technical Communication BS Curriculum

The program educational objectives that have been established for the Bachelor of Science in Technical Communication are as follows. Graduates are prepared to be professionals with the knowledge and skills needed to: (1) identify, analyze, and solve technical communication problems using the principles and modern tools of technical communication, (2) work effectively in a variety of contexts using superior communication skills, knowledge of contemporary issues, and a commitment to professional ethics, (3) manage projects and participate effectively on interdisciplinary teams, (4) pursue additional graduate or professional education and lifelong learning, and (5) participate in local and global communities through sustaining service and leadership.

The program outcomes that have been established for the Bachelor of Science in Technical Communication are as follows. Students at the time of graduation will know and be able to do the following: (1) apply appropriate breadth and depth of skills in audience analysis, rhetorical purpose, and information design to identify technical communication problems, (2) apply appropriate breadth and depth of core competencies (technical writing/editing, multimedia, usability, and instructional design) to analyze and solve technical communication problems, (3) communicate effectively to both specialized and public audiences in a variety of modes, using appropriate media, (4) incorporate an understanding of global contemporary issues and professional ethics in the practice of technical communication, (5) demonstrate the ability to lead and manage projects and participate in inter-
disciplinary teams, (6) relate the practice of technical communication to the need for lifelong learning, and (7) demonstrate community service and leadership (campus, civic, professional or religious organizations).

Bachelor of Science (BS) Degree Requirements
Technical Communication Major

1. UNV 101 ..............................................................1 hour
2. Engineering, Mathematics, and Science Core ....................Approx. 31 hours
   (Depending upon placement; may substitute higher-level courses)
   EGR 107. Introduction to Engineering Design
   EGR 108. Professional Practices
   EGR 126. Programming for Engineers [or CSC 204]
   MAT 126. Elementary Statistical Methods
   MAT 133. Precalculus
   MAT 141. Calculus for the Social Sciences
   MAT 226. Elementary Statistical Methods
   Three courses (at least 1 Physics and Lab) from these:
   PHY 115. Descriptive Astronomy
   PHY 141. Intro. Physics I
   PHY 121L. Intro. Physics I Lab
   PHY 142. Intro. Physics II
   PHY 142L. Intro. Physics II Lab
   EES 150. Introduction to Environmental Science
   EES 210. Environmental Geology
   EES 105. Geology
   EES 110. Meteorology
   CHM 108. Concepts of Chemistry
   CHM 111. General Chemistry I
   CHM 112. General Chemistry II
   BIO 205. Intro. To Biology for Biomedical Engineers
   BIO 211. Introduction to Biology I
3. Required TCO Courses ................................................19 hours
   TCO 285. Document and Web Design
   TCO 341. Technical Communication
   TCO 361. Usability
   TCO 363. Instructional Design
   TCO 421. Technical Editing
   TCO 480. Introduction to Senior Design or Internship
   TCO 487. Senior Design Project I, and
   TCO 488. Senior Design Project II
   Or
   TCO 496. Technical Communication Internship, plus
   TCO 498. Graduation Exhibit
4. TCO Electives .........................................................24 hours
   Additional electives may be selected from outside TCO with approval by the student's TCO advisor.
   TCO 325. Multimedia
   TCO 345. Communication in Management
   TCO 351. Reports & Proposals
TCO 376. Visual Communication
TCO 425. Advanced Multimedia
TCO 476. Communication in High-Tech Environments
TCO 491. Special Topics: (subtitle)
TCO 492. Special Topics: (subtitle)
TCO 493. Special Topics: (subtitle)
TCO 499. Independent Study

5. General Education Requirements ........................................ 15 hours
BS students in Technical Communication select from the same General Education Requirements as BSE students. Please refer to the BSE General Education section of this catalog.

6. Professional Area Electives .................................................. 15 hours
Students must select one of the Professional Areas outlined below. These courses are designed to develop strength in a corollary discipline compatible with the student's career plans. In some departments, this professional elective may be called a minor and be so listed on the transcript.

At least three courses should be selected from courses numbered 300 or above. Consult the faculty advisor for best fit with career plans.

(1) Computer Science or Information Science Technology
A large percentage of technical communication careers involve the computer industry; having a grasp of computer science and information technology is an asset for technical communicators. See the College of Liberal Arts section of the catalog for descriptions of minors in CSC and IST.

(2) Business Minors
Understanding the business environment is a great help in working in corporate settings. The Stetson School of Business & Economics offers minors to non-BBA students in Accounting, Business Administration, and Economics. See the SSBE section of this catalog for requirements.

(3) Foreign Language
Many companies are international, and having skills in a language will be an asset. Courses leading to a minor in French, Spanish, or German will involve at least two courses numbered 300 or above. The total number of courses will depend upon the student's earlier preparation and fluency. Please see the Foreign Languages and Literatures Department in the College of Liberal Arts and consult the catalog.

(4) Engineering Emphasis
Preparation for working in engineering environments helps open doors within highly technical companies. Working with the chair of the chosen specialization area, the student selects at least 15 hours from the specialization. Students must meet the prerequisites of the courses selected and approved for the Professional Area.

(5) Communication and Theatre Arts or Media Studies
Concepts in communication, mass media, journalism, speaking, and video are relevant courses for technical communicators. See the description of the minors in CTA in the College of Liberal Arts section of this catalog.

(6) Individualized
Students may individualize their choices, providing they select at least 15 hours making a coherent, logical set of courses, with at least 3 courses numbered 300 or above. Consult with your advisor and get approval from the Technical Communication Program Director.
7. Free Electives

Students will take free electives as needed to gain the 129 hours required for graduation. These electives are entirely open for student choice.

Total Semester Hours Required 129 hours

Double and/or Second Majors

Students are encouraged to investigate the possibility of combining another major with the technical communication major, especially when preferred career directions are clear early in their academic programs. This option may provide opportunities to combine fields of interest, even widely dissimilar ones.

Minor in Technical Communication

Students wishing to earn a minor in technical communication should select at least 15 hours of course work in technical communication courses, including TCO 285, TCO 341 and at least two other courses above 300. The student should consult with the chair of his/her major academic unit to get approval for selected courses and then formally declare the TCO minor.

Sample 4-Year Curriculum

The Bachelor of Science in Technical Communication degree may be completed in four years. This sample curriculum shows one possible configuration of courses, but will vary according to each student’s circumstances (for example, students who exempt MAT 133 will have 4 more hours of free electives).

Technical Communication

### Freshman Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tbody>
<tr>
<td>UNV 101 Freshman</td>
<td>EGR 107 Intro to</td>
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<tr>
<td>Experience 1</td>
<td>Engr Design 2</td>
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<tr>
<td>EGR 108 Professional</td>
<td>EGR 126 Programming</td>
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<td>for Engr 3</td>
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### Sophomore Year

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<tbody>
<tr>
<td>TCO 285 Document</td>
<td>TCO 325 Multimedia</td>
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<td>&amp; Web Design 3</td>
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<td>XXX Prof. Area</td>
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<td>Elective 1</td>
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<td>TCO XXX (TCO Elective)</td>
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<tr>
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Senior Year

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*Or Senior Design 487-488
**Number of Free Electives will vary; must reach total hours of 129

TCO Courses

TCO 285. Document and Web Design  
(3-0-3)  
Designing effective print and web documents for varying audiences and purposes. Includes basic design principles, integration of visuals, analysis of multiple documents, production issues, and introduction to computer software for desktop publishing and web design. Requires additional lab time outside of class.

TCO 325. Multimedia  
(3-0-3)  
Prerequisite: TCO 285.  
An introduction to the technical aspects of computer-based multimedia. Technical and hardware issues as well as theory and design concepts will be covered. Students will analyze the audience and purpose for multimedia, consider advantages and disadvantages of different technologies, and design, build and test multimedia products. Recommended for TCO majors and minors. Includes laboratory exercises and design projects.

TCO 341. Technical Communication  
(3-0-3)  
Prerequisites: EGR 108 or equivalent; completed minimum 45 credit hours.  
Introduction to forms and processes of technical communication, including letters and memos, reports, instructions, and proposals. Includes oral presentations, peer reviews, collaborative efforts. Emphasis is on determining audience and purpose, especially within organizational contexts, and on designing effective documents. Introduction to resume and data gathering.
TCO 345. Communication in Management (3-0-3)  
Prerequisite: TCO 341, or permission of instructor.  
Study of the role of communication in management of publications, projects, and people.  
Includes information specification and planning, quality standards, tracking systems, production, and evaluation. Emphasis on understanding organizational structures, building teams, and adapting to rapidly changing technologies and expectations.

TCO 351. Reports and Proposals (3-0-3)  
Prerequisite: TCO 341.  
Covers the principles involved in preparing scientific or technical reports and proposals for various audiences. Audience analysis, clarification of communication purposes, and presentation skills are included. Attention is given to research skills, individual and collaborative writing processes, review and editing procedures, layout and document design, and styles of reports and proposals.

TCO 361. Usability (3-0-3)  
Prerequisites: TCO 285, TCO 341.  
Theory and practice of designing usable information for different audiences and purposes (document usability, interface design, web usability, etc.). Students participate in a major course project introducing planning and project management, user and task analysis, document and interface design, usability testing. Includes laboratory exercises and design projects.

TCO 363. Instructional Design (3-0-3)  
Prerequisites: TCO 285, TCO 341.  
Theory and practice of designing information products for teaching or training; includes concepts of adult learning theory, delivery in various models (face to face, online, on CD, etc.), and evaluation of learning. Students participate in a major course project including planning and project management, instructional design, and training.

TCO 376. Visual Communication (3-0-3)  
Prerequisite: TCO 285 or permission of instructor.  
Introduction to theoretical and applied principles of visual communication. The course explores theories of visual communication which help us understand the structure and organization of the visual world, and explores practical applications of these principles in planning and designing visual systems for new, emerging media. Includes laboratory exercises and design projects.

TCO 421. Technical Editing (3-0-3)  
Prerequisite: TCO 341.  
A workshop course covering the essential tasks performed by technical editors, including editing for grammar, style, form, and content; organizational principles for reader-centered texts; integrated use of art, figures, and numbers in layout; indexing; and managing people and processes in all phases of document preparation. Attention is given to the editor's role in dealing with authors, audiences and purpose, and to the complex analytical skills required for technical editors.

TCO 425. Advanced Multimedia (3-0-3)  
Prerequisites: TCO 285, TCO 325, and TCO 341.  
This course is an advanced study of the technical aspects of multimedia, including animation, video, audio, wiki design, podcasting, and multimedia portfolios. Students will build web content in a collaborative wiki environment, author custom animation, and shoot and edit digital video for incorporation into an online project. The end deliverable is an authored DVD with a professional portfolio. Includes laboratory exercises and design projects.
TCO 476. Communication in High-Tech Environments (3-0-3)
Prerequisite: TCO 341.
This senior capstone course focuses on a topic of significance in the future of technical communication. Through research and presentations, students generate a body of knowledge and identify critical issues related to the future of technical communication.

TCO 480. Introduction to Senior Design or Internship (0-1-0)
Prerequisites: TCO 341 and at least two additional required TCO Core Courses.
Course provides guidance for selecting either Senior Design or Internship options. To successfully complete the course, students will either (a) establish a team and select a design project, or (b) find an appropriate full-time internship. Seminars will be conducted to assist students in creating portfolios, defining projects, creating an action plan, and interviewing with potential clients or employers. Seminar attendance is required to obtain a satisfactory course grade. Graded S/U.

TCO 487, 488. Senior Design Exhibit I, II (1-3-2, 1-3-2)
Prerequisites: TCO 341, senior standing, permission of chair of TCO department.
Technical communication design project in small groups; plan, design, produce, test, and revise a technical document or product under faculty supervision. Prepare presentations at both proposal and final phases. Students must design document(s) or products appropriately for audience and purpose; master technical content, organization, and layout; use appropriate technology; and write with clarity and precision. Professional presentational skills are expected. TCO 488 includes Graduation Exhibit.

TCO 496. Technical Communication Internship (1-0-3)
Prerequisite: permission of TCO Department Program Director.
Corequisite: TCO 498.
This full-time, semester-long internship is the preferred option for TCO majors. Provides the student with practical experience in a technical communication setting, under the supervision of a faculty member. A journal and written report will be submitted, along with documents produced in the internship, if applicable. Interns will deliver a seminar for faculty and students on their internship experience (see TCO 498). Graded S/U.

TCO 498. Graduation Exhibit (1-0-1)
Prerequisite: senior status.
Corequisite: TCO 496.
Public presentation of portfolio, seminar, or other senior capstone exhibits. Required for students selecting TCO 496. Internship, rather than TCO 487-488. Senior Design Project.

SPECIAL COURSES: TCO 491, 492, 493, 499 for variable credit. May be repeated for credit with approval of academic advisor and the Technical Communication Department Program Director.

TCO 491-492-493. Special Topics (1-6 hours)
TCO 499. Independent Study (1-6 hours)
Tift College of Education

Mission

The mission of the Tift College of Education is to prepare students to blend theory with practice, to think critically, and to interact effectively in a technologically complex, global society. To accomplish this mission, the Tift College of Education offers undergraduate and graduate degree programs and educational services designed to meet the needs of diverse students and of the professional education community.

Goals

The Tift College of Education will:

1. Reflect an understanding of education as a broad and lifelong process undergirded by the tradition of liberal learning.
2. Provide and promote academic programs that will respond effectively to geographic, professional, and cultural communities.
3. Cultivate a community of learning characterized by tolerance, compassion, mutual respect, and personal, social, and environmental responsibility.
4. Provide an academic environment that enhances the ability and faculty to synthesize theory and practice.
5. Develop a knowledge base and skills that enable students to interact effectively in a diverse, technologically-complex society.
6. Create an environment for the development of critical thinking skills.
7. Consider viewpoints other than one's own, including viewpoints associated with other cultures and traditions.
8. Commit to live as an engaged and informed citizen.
9. Reflect on one's life and learning experience.
10. Develop a respect for intellectual and religious freedom.
Tift College of Education Degree Programs

The Tift College of Education offers the following degree programs:
- Bachelor of Science in Education
- Master of Education (see Graduate Programs)
- Master of Arts in Teaching (offered on the Atlanta Campus)
- Specialist in Education
- Doctor of Philosophy

Undergraduate Programs

The Tift College of Education offers programs in Teacher Education on the Macon Campus. A student may major in The Holistic Child: Early Childhood and Special Education General Curriculum or Middle Grades Education. In addition to these majors, the Tift College of Education, in conjunction with the College of Liberal Arts and the Townsend School of Music, offers certification programs in secondary education (6-12) and music education (P-12). Mercer’s Teacher Education programs are approved by the Georgia Professional Standards Commission.

The Undergraduate Degree Programs include the following:

Majors

- The Holistic Child (Early Childhood/Special Education General Curriculum P-5 Certification)
- Middle Level Education (4-8 certification)

Certification Programs in conjunction with the College of Liberal Arts and the Townsend School of Music include the following:

Secondary (6-12 certification):
- Biology
- Chemistry
- Earth/Space Science
- English
- History
- Mathematics
- Political Science
P-12 Certification:
- Music

Declaration of a Major

Students should file a Declaration of Major form with the Registrar prior to completing 64 semester hours. Forms for declaring a major are available from the Registrar’s office.

Education Majors: Because of the sequencing of education and other required courses in teacher education, a student should declare his or her major as early as possible. However, declaring a major does not guarantee admission to the Teacher Education Program.

Please Note: Secondary Education is not a major. A student who wants to teach at the secondary level must major in a content area. See the Tift College of Education Secondary Program Coordinator for more information.
Mercer University General Education

Mercer University’s founding vision, articulated by Jesse Mercer in the 1830s, dedicates us to promote free inquiry, religious liberty, and inclusiveness-values consonant with Baptist heritage. University President William D. Underwood underscored that vision in 2006, noting that “...the extent to which a university transforms the lives of individual students, who in turn transform their communities, represents the ultimate measure of a university’s greatness.” To put this transformative vision into practice within the communities we serve, a Mercer University education emphasizes experiences that infuse intellectual growth, cultural understanding, civic responsibility, and moral discernment with practical competencies.

The distinctiveness of their programs and traditions notwithstanding, Mercer University’s undergraduate colleges and schools share learning outcomes that reflect Mercer’s mission to educate the whole person. These undergird the General Education Curricula, which provide the necessary foundation for disciplined study and lifelong learning.

General Education is designed to help students cultivate and refine habits of mind that prepare them to contribute constructively and meaningfully to society. To realize this goal, General Education strives to instill in persons broader perspectives while empowering them to find fuller and richer citizenship in a world in which different cultures, social institutions, and technologies intersect in multiple and diverse ways.

Four Outcomes of General Education

A Mercer education emphasizes experiences that foster intellectual growth, cultural understanding, civic responsibility, and moral discernment. These four interrelated capacities inform the intended outcomes for general education.

Intellectual growth may be interpreted to include complexity of thought, integrative and synthesizing ability, quantitative analysis, qualitative analysis, critical inquiry, critical reflection, creative expression, integration of life and learning experiences, self understanding and knowledge, and capacity for continued learning and intellectual growth.

Cultural awareness may be interpreted to include global perspective, intercultural perspective, empathy, perspective taking, engaging the other, and cultural appreciation.

Civic responsibility may be interpreted to include active responsible citizenship, the ability to engage with problems and issues, civility and respect, collaboration and working in teams, and caring.

Moral discernment may be interpreted to include judgment in ambiguous situations, academic integrity, ethical reasoning, ethical behavior, and the ability to act upon reflectively-held convictions.

These broad learning outcomes are achieved, not in the abstract, but in and through the exercise and development of certain specific practical competencies that are infused in these four outcomes of general education.

- Communicating effectively in writing in a variety of modes and settings
- Communicating effectively orally in a variety of modes and settings
- Analyzing observed natural phenomena through the use of scientific reasoning
- Reasoning quantitatively
- Integrating coherently diverse perspectives with knowledge
- Acting perceptively and responsibly in light of the education one has received

As required by the University’s accrediting body, general education programs at Mercer will constitute a minimum of 30 semester hours to include credit hours in humanities/ fine arts, social/ behavioral science, and science/mathematics.

**General Education Requirements**

Consistent with its mission, the Tift College of Education requires a set of general education courses (general studies) that emphasize technology, cultural diversity, and global society. The following requirements are designed to meet the needs of residential undergraduate students seeking a degree in education.

<table>
<thead>
<tr>
<th>Category Course</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Freshman Experience</td>
<td>UNV 101</td>
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<tr>
<td>Communication</td>
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<td>(4 courses)</td>
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<td>any Christianity</td>
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<td>any Literature (EDUC 334 applies for The Holistic Child major)</td>
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<td>ART 106,107</td>
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<td>(2 SPN courses required for majors in The Holistic Child)</td>
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<td>MAT 104 or above (Middle Level)</td>
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<td>MATH 201 (Holistic Child)</td>
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SCI 105 (Middle Level)  
SCIE 201 (The Holistic Child)  
1 course from:  
MAT 104 or above (Holistic Child choice only; Middle Level must choose additional lab science)  
BIO 115, 116, 211, 212  
ChM 111, 112  
EES 105, 110, 150  
PHY 115, 141 & 121L, 161 & 121L  
SCI 105 (option in this category for The Holistic Child major only)  
Or two modules from:  
BIO 105, 106  
EES 103, 104  
PHY 101, PHY/MUS 103  
SCI 112  

Total Hours Minimum of 46

**The Great Books Program**

The Great Books program, available through the College of Liberal Arts, is allowed in the Tift College of Education as a means for meeting the General Education Requirements. The student is advised to see the Chair if interested in this program.

**Tift College of Education Honors Program**

Entering freshmen of outstanding potential are invited to participate in the Tift College of Education’s Honors Program. In order to graduate with University Honors, participating students must fulfill the Honors core requirements, which are outlined in the general Academic Information section of this catalog, as well as the following College-specific requirements:

- Cultural Events: Students must participate in at least two Honors Program-sponsored cultural events at some point during their four years at Mercer. The program will sponsor one cultural even per semester.
- Portfolio Exhibit: Students must present the culmination of their work during their senior year in an annual portfolio exhibit.
- Additional Hours: Students will take an additional six hours, choosing from the following:
  - HON 250-251 – Summer Study Abroad Trip (3 hours each)
  - HON 310-311 – Interdisciplinary seminars (3 hours each)
  - HON 320-321 – Service learning seminars (3 hours each)
  - Courses from the ESOL Endorsement (3 hours each)

**The Tift College of Education Conceptual Framework**

Within the context of a distinctive Baptist heritage, the inclusion of the Paideia ideal, and the know-how of blending theory and practice, the Tift College of Education has chosen for its conceptual framework the theme: *"The Transforming Practitioner - To Know, To Do, To Be."*
TO KNOW

To Know the foundations of the education profession, content bases for curricula, and characteristics of diverse learners.

1. Demonstrates knowledge of the philosophical, historical, sociological, legal, and psychological foundations of education.
2. Demonstrates expertise in the content bases for curricula, the appropriate uses of technology, good communication skills, and effective pedagogy.
3. Shows understanding of and respect for the characteristics, cognitive and social developmental stages, emotional and psychological needs and learning styles of diverse and special needs learners.

TO DO

To Do the work of a professional educator in planning and implementing well-integrated curricula using developmentally appropriate and culturally responsive instructional strategies, materials, and technology.

1. Plans, implements and assesses well-integrated, developmentally appropriate, and culturally responsive lessons which are well grounded in pedagogical and psychological theory.
2. Individualizes, differentiates, and adapts instruction to meet the needs of diverse and special needs learners.
3. Uses a wide variety of teaching methods, strategies, technology, and materials.

TO BE

To Be a reflective, collaborative, and responsive decision-maker, facilitator, and role model within the classroom, school, community, and global environment.

1. Believes in his or her own efficacy as an educator and uses feedback, reflection, research, and collaboration to enhance teaching performance, revise and refine instruction, make decisions, develop and modify instruction, and grow as a professional.
2. Models understanding, respect, and appreciation for diverse educational, cultural, and socioeconomic groups; a willingness to consider diverse opinions and perspectives; and concern for community and global awareness.
3. Models positive and effective interpersonal skills interacting with learners, parents, other educators and members of the community.

Purposes

The Teacher Education program is designed to prepare effective teachers by providing preservice students with:

1. A broad background in the liberal arts, including study in communication, literature, the social sciences, the arts, mathematics, and the natural sciences.
2. A knowledge base of subject area content appropriate to the particular certification area(s) and grade spans.
3. A knowledge base of educational foundations, educational psychology, human development, human exceptionalities, and parental and family dynamics.
4. A knowledge base of student and subject, appropriate methodologies, techniques, strategies, and technology appropriate for facilitating learning and enabling all stu-
students, including the exceptional, disabled, and culturally diverse, to become engaged and active learners.

5. The opportunities to demonstrate competency and effectiveness as a teacher through a sequentially planned series of field experiences that allow the student to begin with observation, move through tutorial, small-group, and whole-group teaching experience, and culminate with a 12-week student teaching experience.

Because of the recognition of the importance of addressing technological advancements within society, emphasis on the relevance of technological developments is infused throughout courses in the undergraduate program. Additionally, all course work within the Teacher Education program reflects the faculty’s recognition of diverse and special needs students. The inclusive education of disabled students stresses the importance of the concept that regular educators must plan appropriately for disabled, special needs, and other diverse populations.

Code of Ethics for Educators

All students admitted into the Tift College of Education are expected to abide by the Code of Ethics for Educators as published by the Georgia Professional Standards Commission. Violation of any standard within the Code of Ethics may result in dismissal from the program.

Admission to the Teacher Education Program

A student wishing to major in The Holistic Child (ECE and Special Education), or Middle Grades Education, or a student in the College of Liberal Arts or the Townsend School of Music seeking secondary (6-12) or special subject (P-12) certification must formally apply for admission to the Teacher Education program.

Criteria and Procedures for Admission to the Teacher Education Program

All students must formally apply for admission to the Teacher Education Program. Because of the sequencing of courses and because of prerequisite courses for admission, a student should declare his or her specific major or certification intent in the Tift College of Education and should obtain a copy of the Teacher Education Handbook in the first semester of enrollment. The Teacher Education Handbook is found on-line and is discussed at Orientation or in designated classes.

After a student is admitted to the Teacher Education Program, that student must continue to make satisfactory progress. The Tift College of Education reserves the right to review periodically the progress of each student and also reserves the right to remove any student from a Teacher Education Program for failing to continue to meet the established criteria and policies in effect at the time of admission, and/or for demonstrating conduct that has been judged unethical or illegal based on the Code of Ethics, on the Mercer University Honor Code, on the Standards of Conduct published by the Georgia Professional Standards Commission (PSC). If a student is denied admission to Teacher Education, that student must meet any revised admission requirements in effect at the time of re-application.

Admission to Teacher Candidacy

To be fully admitted to teacher candidacy, a student must:

1. Have a cumulative undergraduate GPA of 2.5
2. Have taken and have earned no grade below a "C" in FYS 101 and FYS 102.
3. Have taken and have earned no grade below a "C" in the math core class.
4. Have passed all education courses taken and have earned no grade below a “C”.

5. Have passed all courses taken for areas of concentration in middle grades or for certification in secondary and P-12 content areas and have earned no grade below a “C”.

6. Have passed all GACE Basic Skills tests with a score on each test that reflects the minimum score set by the Georgia Professional Standards Commission. Students may be exempt from this requirement if they provide official documentation of qualifying scores on any of these tests: SAT, ACT, GRE, CBEST, CLAST, FTCE-GK.

7. Have declared a major in teacher education. Secondary education students need to declare the appropriate major in the College of Liberal Arts and need to declare the intent to seek Secondary Education Teacher Certification (See Major–Minor Form). Those students seeking P–12 certification in music should declare Music Education as a major in the Townsend School of Music (See Major-Minor Form).

8. Have submitted an application for admission to Teacher Candidacy in the semester prior to registering for any restricted 300 and 400 level education courses.

9. Have attended a Teacher Education Orientation session.

**Progression Policy**

Once a student is admitted to Teacher Candidacy, he/she must:

1. Maintain a cumulative GPA of 2.5 or better.

2. Maintain a 2.75 GPA or better in all education courses required for the major, including courses required for areas of concentration in middle grades or courses required for certification in secondary content areas or in special subjects, e.g., music.

3. Successfully complete all education courses. A teacher candidate who receives a grade below “C” in more than two (2) education courses will be dismissed from the Teacher Education Program. Only two (2) education courses with grades below “C” may be repeated, and no education course may be repeated more than one time.

4. Have positive recommendations from each field experience in order to advance in the sequence of field experiences. Please note that field experience placements must meet all diversity criteria, i.e., placement in a minimum of three (3) different schools and placement in required grade clusters.

5. Have successfully completed all education courses and all content courses required for certification prior to recommendation for student teaching. Further, in order to be recommended for student teaching, a student may have no more than eight (8) hours of general education coursework to be completed in the term following student teaching.

**Candidate for Certification**

In order to be recommended for licensure/certification, a teacher candidate must:

1. Have successfully met all Progression Policy criteria.
2. Have a positive recommendation from student teaching.
3. Have successfully completed all program/degree requirements.
4. Have successfully completed Portfolio requirements.
5. Have successfully passed the appropriate GACE Content test(s) and have submitted complete score reports to the appropriate Certification Office.
6. Have met all state requirements for certification.

Repeating Courses

A grade point average of at least 2.75 is required in all professional education courses. Students also must maintain a 2.75 GPA or better in all courses required for the major, including courses required for areas of concentration in middle grades and for certification in secondary and special subjects (P-12).

Students must earn a minimum of a C in all required courses for certification. Students may repeat no more than two (2) such courses. If a student receives less than a C in more than two (2) education courses, the student will be dismissed from the Teacher Education Program. A teacher education course may be repeated only one time.

Transfer Student Admission Policy

Undergraduate transfer students who wish to enter the Teacher Education program must meet all criteria before being fully admitted.

Teacher Education Field Experience

Field experiences in the Teacher Education Program (i.e., Fieldwork I, Fieldwork II, Professional Practicum, Student Teaching, and the seven field component courses in The Holistic Child program) are carefully designed to prepare prospective teachers to work effectively in school classrooms. The field experiences are systematically selected and sequenced to provide opportunities for prospective teachers to observe, plan, and practice in a variety of settings appropriate to the professional roles for which they are being prepared. Specific policies and procedures have been established to facilitate the field experiences of Mercer’s Teacher Education students in the schools. These policies are available in the Teacher Education Handbook.

THE HOLISTIC CHILD MAJOR

The Holistic Child program at Mercer University offers an academic perspective to the candidate that values the individual and authentic worth of the young child through the inclusive lens of the regular classroom. Following an integrated, technologically immersed curriculum, the candidate will experience varied field and life experiences within the culture of diverse school and community populations. Having completed this four-year program of study, the Holistic Child candidate will become a reflective practitioner, advocating the needs and rights of the young child, while collaborating and establishing partnerships with parents, schools, and communities.

Program Objectives - Outcomes

Upon completion of the Holistic Child Program, the candidate will:

Content and Process: To Know

1. Understand the young child from a holistic perspective with an emphasis upon the cognitive, affective, and psychomotor domains – as well as the child’s environment. (Understanding)
2. Acquire a knowledge base about various curriculum models and best practices. (Understanding)

3. Appreciate the importance of community in working with all children and their diversity, including ethnic, language, cultural, socio-economic, disabilities, and gender. (Diversity)

Application: To Do

1. Construct and implement an integrated, developmentally appropriate curriculum for all areas of a child's development, including cognitive, emotional, social, and physical. (Practicing and Engagement)

2. Demonstrate competency in developing and implementing a wide variety of diagnostic and assessment techniques and strategies. (Practicing)

3. Integrate technological advances as a routine part of the curriculum. (Engagement)

Attitude: To Be

1. Know self as an individual and recognize one's point of growth along the continuum of teaching as an emerging, developing, and transforming practitioner. (Reflecting)

2. Advocate for young children and their families. (Collaboration)

3. Collaborate with other professionals, families and the broader community in planning and implementing instructional programs. (Collaboration)

The Holistic Child
B.S.Ed. Degree
128 Semester Hours

Requirements

General Studies ................................................................. 50 min. hours

Professional and Pedagogical Studies ...................................39 hours

EDUC 101. The Holistic Child I
EDUC 102. The Holistic Child II
EDUC 201. The Learning and Developing Child I
EDUC 202. The Learning and Developing Child II
EDUC 311. The Learning Environment I
EDUC 313. The Learning Environment II
EDUC 102B. Field Component 1B
EDUC 201A. Field Component IIA
EDUC 202B. Field Component IIB
EDUC 311A. Field Component IIIA
EDUC 313B. Field Component IIIB
EDUC 480. Field Component IVA
EDUC 496. Field Component IVB

Content Studies ................................................................. 33 hours

EDUC 315. Curriculum Planning
EDUC 316. Collaboration
EDUC 317. Social and Cultural Studies
EDUC 331. Math/Science Methods
EDUC 332. Teaching Reading
EDUC 333. Curriculum-based Assessment
EDUC 334. Literature and Language Arts (counts in general studies)
EDUC 402. Reading Problems — Diagnosis/Remediation
EDUC 403. The Home, School, and Community Connection
EDUC 404. The Holistic Capstone: A Fine Arts Approach
[NOTE: Credit for this 3 hour class is included under the general studies requirements.]
EDUC 405. Classroom Management

Electives...........................................................................................................0-6 hours
Portfolio............................................................................................................0 hours

TOTAL ...........................................................................................................128 semester hours

The Holistic Child
Schedule of Courses

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<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<td>1st Year</td>
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<td>EDUC 101</td>
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<td>EDUC 102B</td>
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<td>EDUC 317</td>
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<td>EDUC 311A</td>
<td>EDUC 313B</td>
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<td>4th Year</td>
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<td>EDUC 333</td>
<td>EDUC 405</td>
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<td>EDUC 402</td>
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<td>EDUC 403</td>
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<td>EDUC 404</td>
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<td>EDUC 480</td>
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**MIDDLE LEVEL EDUCATION**

The goal of the Mercer University Tift College of Education is to prepare middle level educators as Transforming Practitioners who move through self-transformation during the facilitation of learning, while enabling the transformation of middle level students, a group of unique and diverse individuals transitioning from childhood to adolescence. Candidates in the Middle Level Education program are prepared in general studies, professional and pedagogical studies, and content studies, which include two subject area concentrations. Completion of this program qualifies candidates for Middle Grades Certification in the two areas of concentration.
Program Objectives/Outcomes

Upon completion of the Middle Level Education program, the candidate will demonstrate:

1. A knowledge base that blends knowledge of development of 10-14 year-olds with in-depth knowledge of content, pedagogy, and assessment in the two concentration areas. **TO KNOW**

2. Understanding of the middle school philosophy and concept and knowledge of the characteristics of an effective middle school. **TO KNOW**

3. Knowledge and understanding of middle school students and the uniqueness and diversity (age, ability, gender, special needs, etc.) exhibited by that group of students, and the ability and skills to meet the needs of the diversity exhibited in today’s middle schools. **TO KNOW**

4. Knowledge and understanding of effective curricular models that meet the unique needs of middle level students. **TO KNOW**

5. Knowledge and understanding of “teaming” and the ability and skills to collaborate effectively in such a setting, which involves knowledge of content, pedagogy, and assessment across the four concentration areas and of integrated teaching and learning. **TO KNOW, TO DO, TO BE**

6. Knowledge of reading in the content areas and across the curriculum. **TO KNOW**

7. The ability and skills to effectively plan, organize, implement, and assess in a collaborative team setting and as an individual. **TO DO**

8. The ability and skills to provide an effective advisor-advisee component in the middle school curriculum. **TO DO**

9. The ability and skills to be an effective collaborator with families, community, and other partners. **TO BE**

10. The ability and skills to engage in meta-cognition and reflection for continued enhancement and effectiveness as a Transforming Practitioner. **TO BE**

To be highly qualified, the Middle Level Education teacher candidate must be prepared with the uniqueness of middle level schooling as a defining characteristic. In addition to strong preparation in the two content concentrations, the Middle Level Education curriculum includes an embedded emphasis on reading and a focus on integrated instruction. The reading emphasis (which does not result in a reading concentration or a reading endorsement) is a strand in five required courses and prepares teachers to address the literacy needs of middle level students. The focus on integration is highlighted in two integrated methods courses that address integrated, interdisciplinary planning, teaching, and assessment.

MIDDLE LEVEL EDUCATION
B.S.Ed. Degree
128 Semester Hours

Requirements

**General Studies:** ..........................................................minimum 46 hours

**Professional and Pedagogical Studies:** ........................32 hours

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<tr>
<th>Course</th>
<th>Title</th>
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<tr>
<td>EDUC 220</td>
<td>Foundations of Education</td>
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<tr>
<td>EDUC 256</td>
<td>Adolescent Health &amp; Development</td>
</tr>
<tr>
<td>EDUC 283</td>
<td>Fundamentals of Special Education</td>
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340 / MERCER UNIVERSITY
EDUC 357. Psychology of Learning
EDUC 398. Fieldwork I
EDUC 399. Fieldwork II
EDUC 485. Professional Practicum
EDUC 406. Classroom Management for MLE and SEC
EDUC 492. Student Teaching

Content Studies .......................... minimum 50 hours
EDUC 210. Instructional Technologies for Teaching and Learning
EDUC 360. Introduction to Middle Level Schooling

Two Concentration Methods Courses, chosen from the following:
- EDUC 422. Teaching of Science for MGE
- EDUC 429. Teaching of Social Studies for MGE
- EDUC 455. Teaching of Mathematics for MGE
- EDUC 466. Teaching of English/Language Arts for MGE

EDUC 460. Middle School Curriculum
EDUC 461. Middle Level Integrated Methods I: Processes
EDUC 462. Middle Level Integrated Methods II: Instruction & Assessment
EDUC 478. Teaching Literacy for MGE

Concentration I (6 courses)*
Concentration II (6 courses)*
*2-4 concentration courses will overlap with general studies

Portfolio ................................................................. 0 hours

TOTAL ................................................................. minimum 128 hours

MIDDLE LEVEL CONCENTRATIONS

Language Arts Concentration
EDUC 466: Teaching English/Language Arts MGE
EDUC 379: Young Adult Literature
English Language Course
(choose 1: ENG 323 or 325)
Any Cultural/Ethnic/Women's Literature
Any British Literature
Any American Literature
Any Literature

Mathematics Concentration
EDUC 455 Math Methods for MGE
Choose one of two tracks

Track 1:
- MAT 133 Precalculus*
- MAT 191 Calculus I
- MAT 192 Calculus II
- MAT 260 Intro to Abstract Mathematics
- MAT 340 Linear Algebra
- MAT 350 College Geometry

Track 2:
- MAT 133 Precalculus*
- MAT 191 Calculus I
- MAT 225 Intro to Discrete Mathematics

Science Concentration
EDUC 422: Teaching Science MGE
SCI 105: Scientific Inquiry
Earth Science Courses
- EES 105: Geology
- EES 110: Meteorology
Life Science Course:
- (choose 1: BIO 211; BIO 212; EES 150)
Chemical/Physical Science Course:
- (choose 1: CHM 111; CHM 112; CHM 115; PHY 141/121L; PHY 161/121L)
Choose one additional course from any course in BIO, CHM, EES, or PHY.

Social Studies Concentration
EDUC 429: Teaching Social Studies MGE
Western Civilization Survey
- (HIS 111 or HIS 112)
American History Course
- (choose 1: HIS 165; 352; 352; 356; 361; 362; 363; 377)
Geography Course (choose 1: GEOG 301 or EDUC 390: Geography for...
MAT 340 Linear Algebra
MAT 350 College Geometry
Choose 1:
MAT 126 Elementary Statistical Methods
MAT 320 Intro to Probability and
Mathematical Statistics

Teachers)
Government Course (choose 1:
POL 101 or 305)
Social/Ethnic/Non-Western World Studies
Course (choose 1: SOC 210; 295; 321;
POL 253; 313)

* Students placing into MAT 191, choose one additional course

### MIDDLE LEVEL EDUCATION

#### RECOMMENDED SEQUENCE OF STUDY

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<th>Spring Semester</th>
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<td>EDUC 256</td>
<td>EDUC 283</td>
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<td>EDUC 357</td>
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<td>EDUC 398</td>
<td>EDUC 461</td>
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<tr>
<td>Content</td>
<td>Content and/or Concentration</td>
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#### Senior Year

| EDUC 460 | EDUC 492 |
| EDUC 485 | EDUC 406 |
| EDUC 462 |          |

Content and/or Concentration Methods (EDUC 422, 429, 455, and/or 466)

### CERTIFICATION PROGRAMS

#### SECONDARY/P12 SPECIAL SUBJECTS

Mercer University degree-seeking students can add secondary certification to majors in English, Mathematics, Biology, Chemistry, Earth/Space Science, History, and Political Science. P-12 certification is available for majors in Music. Program Objectives/Outcomes for each certification program and individual program descriptions are in the Teacher Education Handbook. Students must meet the requirements for a degree in the relevant major and any additional courses required for certification.

#### Requirements

**Professional and Pedagogical Studies** .................................................. 33 hours

- EDUC 210. Instructional Technologies for Teaching and Learning (not required for Music certification)
- EDUC 220. Foundations of Education
- EDUC 256. Adolescent Health and Development
- EDUC 283. Fundamentals of Special Education
- EDUC 357. Psychology of Learning
- EDUC 398. Fieldwork I
EDUC 399. Fieldwork II  
EDUC 485. Professional Practicum  
EDUC 406. Classroom Management for MLE and SEC  
EDUC 492. Student Teaching

**Content Studies**  
varies by Major

**English:**  
EDUC 469. Secondary School Curriculum  
EDUC 468. Teaching English in the Secondary School  
EDUC 476. Teaching Literacy 6-12  
English major to include ENG 323 or 325

**Mathematics:**  
EDUC 469. Secondary School Curriculum  
EDUC 456. Teaching Mathematics in the Secondary School  
EDUC 476. Teaching Literacy 6-12  
Math major to include MAT 350 and 320; MAT 225 recommended

**Biology:**  
EDUC 469. Secondary School Curriculum

**Chemistry, & Earth/Space Science:**  
EDUC 423. Teaching Science in the Secondary School  
EDUC 476. Teaching Literacy 6-12  
Biology major to include BIO 390: Environmental Health & Toxicology or BIO 390: Public Health in Epidemiology and PHY 141/121L and 142/142L  
Chemistry major to include BIO 211 and 212 and CHM 465  
Earth and Environmental Science (B.S. program) major to include EES 110; EES 220 or EES 310; and PHY 115

**History & Political Sci:**  
EDUC 469. Secondary School Curriculum  
EDUC 476. Teaching Literacy 6-12  
History major to include at least one course in Non-Western History  
Political Science major to include POL 348 or 349 and one course in Comparative Governments

**Music:**  
EDUC/MUS 157. Vocal Techniques  
EDUC/MUS 215. Sophomore Practicum I  
EDUC/MUS 216. Sophomore Practicum II  
EDUC/MUS 370. The Elementary School Music Specialist  
EDUC/MUS 372. The Secondary School Music Program: Methods and Techniques  
EDUC 474. Advanced Choral Methods OR EDUC 475. Advanced Instrumental Methods

Music Education major is fully described in the School of Music section of the catalog.

**English to Speakers of Other Languages (ESOL) Endorsement**

A program leading to an endorsement in English to Speakers of Other Languages (ESOL) is available to Tift College of Education students who are seeking or hold a valid teaching certificate in any field. Successful completion of the three course sequence will
lead to eligibility for an in-field endorsement in ESOL. The courses required for the endorsement are the following:

- ENG 325. Contemporary Theories in Linguistics
- EDUC 312. Teaching Speakers of Other Languages
- EDUC 314. ESOL Methods and Materials

The ESOL endorsement sequence may be completed in a non-degree status or as electives within a teacher preparation program.

**TEACHER EDUCATION MINOR**

A minor in teacher education is available to all Mercer students; however, receiving a minor in teacher education does not fulfill the requirements for teacher certification.

Teacher Education Minor ........................................18 semester hours

- EDUC 210. Instructional Technologies for Teaching and Learning
- EDUC 220. Foundations of Education
- EDUC 256. Adolescent Health and Development
- EDUC 283. Fundamentals of Special Education
- EDUC 357. Psychology of Learning
- EDUC 378. Children's Literature
  or
- EDUC 379. Young Adult Literature

**EDUCATION (EDUC)**

- **EDUC 101, 102. The Holistic Child I & II** (3 hours)
  Prerequisite to 102: 101
  Co-requisite to 102: 102B
  The Holistic Child I & II provide an overview of the social, philosophical, historical, legal, and psychological issues in education. The needs of all children are considered from the perspectives of inclusion and regular education. The special needs of all young children are intertwined throughout the courses to give the candidate an integrated notion of providing appropriate educational practices in the setting of the regular classroom. (3 hours each)

- **EDUC 102B. Field Component I B - The Holistic Child** (1 hour)
  Co-requisite: EDUC 102.
  This field experience provides a field-based experience for students enrolled in The Holistic Child program. Students spend a minimum of 24 hours observing and participating in a variety of community-based settings in activities related to and associated with young children (P-5). (1 hour) Note: grades of satisfactory (S) or unsatisfactory (U). Special fee. Application required. Seminar attendance required.

- **EDUC 157. Vocal Techniques** (2 hours)
  *(Same as MUS 157)*
  Development of individual performance skills in voice. Instruction will broaden pedagogical understanding and provide group vocal techniques and methods for elementary and secondary school music teachers and for students interested in improving their individual singing voice. Survey and evaluation of materials related to vocal development.
EDUC 201, 202. The Learning and Developing Child I & II - The Holistic Child (3 hours)
Prerequisites: EDUC 101, 102, 102B. Co-requisite: EDUC 201A, 202B.
The purpose of these courses is to investigate the physical, social, emotional, and educational characteristics of young children. Particular emphasis will be placed on language development, individuals with mild intellectual disabilities, emotional and behavioral disorders, and learning disabilities, in conjunction with current theories and practices regarding litigation and legislation, assessment, advocacy, and educational resources. (3 hours each)

EDUC 201A, 202B. Field Component II A & B - The Holistic Child (1 hour)
Prerequisite: EDUC 102B. Co-requisite: EDUC 201, 202.
These courses provide field-based experiences for students enrolled in the Holistic Child program. Students spend a minimum of 35 hours over a ten (10) week period in each semester observing and participating in activities related to and associated with young children (P-5) in a regular education and in a special needs classroom setting. Students are placed in one of the two settings for 201A and the other setting for 202B. Students are required to attend field component seminars as scheduled. (1 hour each) Note: grades of satisfactory (S) or unsatisfactory (U). Special fee. Application required.

EDUC 210. Instructional Technologies for Teaching and Learning (3 hours)
This course will cover technologies utilized in the classroom. Emphasis is placed on organizing, planning, and assessing learning while using various technological tools.

EDUC 215. Sophomore Practicum I (Same as MUS 215) (1 hour)
Sophomore Practicum I will meet each spring semester on a TBA schedule. Each student enrolled will be assigned to various elementary schools in the region for 1-2 hours weekly. At these schools the student will observe the cooperating teacher and engage in minor teaching as appropriate for the situation and experience level of the student. A portfolio of each observation/teaching experience will be maintained for each school visit.

EDUC 216. Sophomore Practicum II (Same as MUS 216) (1 hour)
Sophomore Practicum II will meet each fall semester on a TBA schedule. Each student enrolled will be assigned to various secondary schools (vocal and instrumental) in the region for 1-2 hours weekly. At these schools the student will observe the cooperating teacher and engage in minor teaching as appropriate for the situation and experience level of the student. A portfolio of each observation/teaching experience will be maintained for each school visit.

EDUC 220. Foundations of Education (3 hours)
This course will address topics of historical, sociological, philosophical, ethical, and professional significance to the discipline of education, and it will include a study of federal and state educational policies, laws related to education, and international education. Students will be expected to think and write critically about issues in education.
EDUC 221. Performance and Instruction Techniques: 
Woodwinds (2 hours)

(Same as MUS 221)
Development of personal performance skills on flute, clarinet, saxophone, oboe and bassoon; knowledge of the technical considerations of the other members of the flute, clarinet, and saxophone families of instruments. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.

EDUC 222. Performance and Instruction Techniques: 
Percussion (2 hours)

(Same as MUS 222)
Development of personal performance skills on snare drum, timpani, mallet instruments and other commonly used percussion instruments. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.

EDUC 223. Performance and Instruction Techniques: 
Brass (2 hours)

(Same as MUS 223)
Development of personal performance skills on cornet or trumpet, horn, trombone, euphonium, and tuba. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.

EDUC 224. Performance and Instruction Techniques: 
Stringed Instruments (2 hours)

(Same as MUS 224)
Development of personal performance skills on violin, viola, violoncello, and double bass. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.

EDUC 225. Introduction to Teaching (1 hour)
This course is an introduction to teaching profession and to the Teacher Education Program at Mercer University. (Graded on S/U basis)

EDUC 256. Adolescent Health and Development (3 hours)
A study of the healthy development of adolescents. Specific attention will be given to the influences of health on biological, cognitive, social-emotional, and psychomotor development.

EDUC 283. Fundamentals of Special Education (3 hours)
This course explores the fundamentals of special education in America's schools. Emphasis is given to the historical development of special education, relevant legislation and litigation, educational policy, and contemporary trends and issues. This course satisfies the special education requirement for Georgia certification.

EDUC 311, 313. The Learning Environment I & II - The Holistic Child (3 hours)
Prerequisites: EDUC 101, 102, 201, 202.
Co-requisites: EDUC 311A, 313B.
Building a Learning Environment I & II comprises four major elements: Supporting the Nature of the Learners, Methods of Teaching, Collaboration, and Students for whom English is a Second Language. This block of courses provides the candidate with the opportunity to appreciate the importance of community in working with all children and their diversity. Emphasis will be given to understanding the components of building a supportive learning environment.
environment through appropriate instructional strategies, the utilization of effective collaborative skills, and effective pedagogy for culturally and linguistically diverse students. (3 hours each)

**EDUC 311A, 313B. Field Component III A & B - The Holistic Child (1 hour)**

Prerequisites: EDUC 102B, 201A, 202B; full admission into Teacher Education for Holistic Child Program.

Co-requisites: EDUC 311, 313.

These courses provide field-based experiences for candidates enrolled in the Holistic Child Program. Candidates spend a minimum of 35 clock hours over a ten (10) week period in each semester observing and participating in activities related to and associated with young children (P-5) in a regular education and in special needs classroom settings. Candidates will be placed in one of the two settings for Field Component 311A and in the other setting for Field Component 313B. Students are required to attend field component seminars as scheduled. (1 hour each) Note: grades of satisfactory (S) or unsatisfactory (U). Special fee. Application required.

**EDUC 312. Teaching Speakers of Other Languages (3 hours)**

Candidates explore current educational trends, issues, policies and practices involved in ESOL instruction. Demonstrating competence in listening, speaking, writing, and reading of standard English, candidates acquire knowledge of and experience in first and second language acquisition. Particular attention is given to both native and second language acquisition, with attention to regional, social, and functional variations in language.

**EDUC 314. ESOL Methods and Materials (3 hours)**

Candidates learn curricular and material design, as well as methods of teaching non-native speakers of English. Candidates apply assessment techniques and instruments through the use of technology. Providing materials and services beyond ESOL, such as the Even Start Family Literacy Program, the Migrant Education Program, and the Language Disorder Program will be examined.

**EDUC 315. Curriculum Planning - The Holistic Child (6 hours)**

Prerequisite: full admission into Teacher Education for The Holistic Child Program.

Candidates focus on the development, design, and implementation of an integrated, developmentally appropriate curriculum for all areas of a child's development, including: cognitive, emotional, social, and physical. Topics to be studied include curriculum structure and content, instructional goals and objectives, integration of course content and technology, developmentally-appropriate practices, special education, and methods for assessing student performance.

**EDUC 316. Collaboration - The Holistic Child (3 hours)**

Prerequisite: full admission into Teacher Education for The Holistic Child Program.

Candidates explore the collaborative needs of the teachers in an inclusive regular classroom. Emphasis is placed on collaborative practices between teacher and the child, the parents, and various agencies involved in meeting the needs of all learners within the classroom. Ethical principles that govern school-based consultations are examined.

**EDUC 317. Social and Cultural Studies - The Holistic Child (3 hours)**

Prerequisite: full admission into Teacher Education for The Holistic Child Program.

This course introduces students to the theory, knowledge, and strategies to teach the culturally diverse student populations in today’s classrooms. This course goes beyond the usual rhetoric on promoting diversity to present real world guidance and recommendations.
for successful teaching in the changing classroom environment. Methods for teaching the social sciences are examined from an interdisciplinary approach.

**EDUC 331. Methods for Science and Mathematics - The Holistic Child**
(6 hours)
Prerequisite: full admission into Teacher Education for The Holistic Child Program.
This technology-based course uses the basic principles of mathematics and science to assist candidates in developing instruction to meet the needs of all children. Instructional units show the developmentally-appropriate nature of science and mathematics as instruction progresses from P-4 to 5th grades. Research-based principles of successful adaptations to instruction that meet the needs of students with exceptionalities and diverse cultures are incorporated throughout the course.

**EDUC 332. Teaching Reading - The Holistic Child**
(3 hours)
Prerequisite: full admission into Teacher Education for The Holistic Child Program.
A foundation of literacy experiences for young children is examined. The goal of the course is to support the understanding of candidates in how literacy is acquired by primary children. Candidates become familiar with stages of literacy development, approaches and strategies for teaching literacy from an inclusion perspective, and the integration of communication skills across the curriculum.

**EDUC 333. Curriculum-based Assessment - The Holistic Child**
(3 hours)
Prerequisite: full admission into Teacher Education for The Holistic Child Program.
The Curriculum-Based Assessment course provides teacher education candidates the fundamental knowledge and skills to select, create, and implement forms of assessment (both formal and informal) that are developmentally appropriate, diagnostically reliable, and educationally sound. The emphasis of the course is on classroom assessment of the whole child in inclusive P-5 settings.

**EDUC 334. Language Arts and Literature - The Holistic Child**
(3 hours)
Prerequisite: full admission into Teacher Education for The Holistic Child Program.
Candidates become knowledgeable in strategies for teaching language as an integrative process. An introduction to the genres of children's literature includes contemporary literary criticism, selection and analysis of quality literature, appropriate integration of literature across the curriculum, and instruction application of language arts and response theory in literature. Attention is given to assessing and adjusting instruction to meet the reading, speaking, writing, and reading needs of all students.

**EDUC 357. Psychology of Learning**
(3 hours)
The discipline of psychology is used to address educational issues and learning theory. Particular attention will be paid to individual student differences. The focus will be on variations in styles of learning while acknowledging gender and diversity.

**EDUC 360. Introduction to Middle Level Schooling**
(3 hours)
This introductory course will examine middle schools, the development of the middle school concept, and topics considered necessary for effective middle school operations. Emphasis will be placed upon the basic techniques for planning, organizing, and assessing instruction at the middle school level.

**EDUC 370. The Elementary School Music Specialist**
(3 hours)
*Same as MUS 370*
Methods and techniques for structuring and guiding music education in the elementary
Particular attention to the development of children's voices. Acquaintance with Orff and Kodaly approaches. Field study in elementary school classrooms. Intended for music education majors.

EDUC 372. The Secondary School Music Program - Methods and Techniques (3 hours)
(Same as MUS 372)
Effective procedures for recruiting, organizing, planning, and maintaining a successful program of vocal and instrumental music instruction and performance in the secondary schools. Discussion of philosophies of music education. Field study of successful programs and discussions with leaders in the music education profession.

EDUC 378. Children's Literature (3 hours)
The course provides an introduction to the genres of literature for young children. Areas of focus include selection and analysis of quality literature, appropriate integration of literature across the curriculum, and application of response theory in literature.

EDUC 379. Young Adult Literature (3 hours)
This course provides an introduction to and survey of young adult literature for middle and secondary school students. Emphasis will be placed on using young adult literature to create life-long learners. Areas of focus include survey of the different genres of young adult literature, utilization of young adult literature in all content areas in the middle and secondary schools, and censorship.

EDUC 390. Special Topics (1-3 hours)
Prerequisites: consent of program director and department chair.
This course offers a study of some significant topic in education that is not available through other program offerings.

EDUC 398. Fieldwork I (1 hour)
Prerequisite: full admission status.
This course provides a seven-week school-based experience for education students. Students will be assigned to diverse public schools and will spend a minimum of 35 clock hours observing and participating, on a limited basis, in classroom-related activities. Students are required to attend Fieldwork I seminars. Note: grades of satisfactory (S) or unsatisfactory (U). Special fee. Application required.

EDUC 399. Fieldwork II (1 hour)
Prerequisites: EDUC 256, 357, and full admission status.
This course provides a seven-week school-based experience for education students. Students will be assigned to diverse public schools and will spend a minimum of 35 clock hours observing and participating in teaching and learning activities. Students are required to attend Fieldwork II seminars. Note: Grades of satisfactory (S) or unsatisfactory (U). Special fee. Application required.

EDUC 402. Reading Problems: Diagnosis & Remediation - The Holistic Child (3 hours)
Prerequisites: full admission into Teacher Education for Holistic Child Program. Completion of 300-level courses in The Holistic Child Program. Candidates understand reading problems in the regular classroom through an inclusive lens. Specific diagnostic tools, corrective techniques, preventive measure, and ways to interpret and synthesize data gathered are examined.
EDUC 403. Connecting Homes, School, and Community -
The Holistic Child (3 hours)
Prerequisites: full admission into Teacher Education for Holistic Child Program. Completion of 300-level courses in The Holistic Child Program.
Content examines the importance of collaboration among the home, school, and broader community in the education of young children. Ways in which young children's learning, behaviors, viewpoints, and habits are affected by family, by school personnel, and by members of the immediate and broader community are addressed.

EDUC 404. The Holistic Capstone: A Fine Arts Approach -
The Holistic Child (3 hours)
Prerequisites: full admission into Teacher Education for Holistic Child Program. Completion of 300-level courses in The Holistic Child Program.
Designed to allow candidates to effectively explore ways that promote creative choices in using and presenting curriculum through the visual arts, drama, dance and music. Candidates learn how to plan and facilitate projects involving visual arts content, create and present productions, help students become responsible movers in space, and use music to support learning across the curriculum.

EDUC 405. Classroom Management - The Holistic Child (3 hours)
Prerequisites: full admission into Teacher Education for Holistic Child Program, EDUC 480. Completion of 300-level courses in The Holistic Child Program.
Co-requisite: EDUC 496.
This course is an introduction to theory, knowledge, and strategies for classroom management for educators who work with early childhood and special needs students. Focus is on organizing the classroom, rules and procedures, and student behavior in three areas: general, problems, and special groups.

EDUC 406. Classroom Management for MLE and SEC (3 hours)
Co-requisite: EDUC 492
This course is an introduction to theory, knowledge, and strategies for classroom management for educators who work with middle level and secondary students. Focus is on management as a triangular model that demonstrates the inter-relatedness of content, conduct, and covenant relationships. Practical application is emphasized, and teacher candidates are expected to develop their own relevant classroom management plans that could be effectively implemented in the public school classroom.

EDUC 422. Teaching Science for MGE (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, and full admission status.
This course addresses science content, process skills, attitudes, and real-world applications which are developmentally appropriate for middle grades science instruction. Effective planning and teaching strategies which incorporate integrated and interdisciplinary approaches, technology, literature, and multi-cultural education are combined with the theories of learning.

EDUC 423. Teaching Science for Secondary (3 hours)
Prerequisites: EDUC 220, 256, 357, 469, and full admission status.
This course will provide emphasis on strategies for developing scientific literacy in the secondary school. Emphasis will be placed on active pupil involvement through the use of investigative and inquiry teaching strategies to provide experience in gathering data and solving problems in a cultural context. Course includes laboratory and technology.

EDUC 429. Teaching Social Studies for MGE (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, 469, and full admission status.
The application of transcendent learning theories will be combined with effective teaching
strategies that encourage success in social studies for all. The interdisciplinary nature of social studies will be the focus for the study of curriculum, methods, technology, and professional sources. An emphasis will be on the planning for and development of resources (including the development of a unit).

**EDUC 430. Teaching Social Science for Secondary** (3 hours)
Prerequisite: EDUC 220, 256, 357, 469, and full admission status.
This course is designed to provide an understanding of curriculum, methods, media, materials, and technology appropriate for teaching the social sciences in the secondary classroom. Emphasis will be placed on knowledge of available professional sources and on developing instructional materials suitable for high school students.

**EDUC 455. Teaching Mathematics for MGE** (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, and full admission status.
An overview of the essential components in middle grades mathematics for all children is the focus of this course. Study includes methods, materials, media, technology, and techniques for diagnosing, correcting, teaching, and evaluating mathematics in grades 4-8.

**EDUC 456. Teaching Mathematics in the Secondary School** (3 hours)
Prerequisites: EDUC 220, 256, 357, 469, MAT 133, 350, and full admission status.
Study includes developmentally appropriate methods, materials, media, technology, and techniques for diagnosing, correcting, teaching, and evaluating mathematics in grades 6-12.

**EDUC 460. Middle School Curriculum** (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, and full admission status.
The development of middle school curriculum as it has been shaped by sociocultural and technological forces will be examined. Topics to be studied include curriculum planning and assessment, common core curriculum, advisee/advisor curriculum, exploration, school activities, integrating the curriculum, and instructional practices appropriate for the young adolescent learner. Issues, trends, and research relevant to effective middle-level instructional practices are discussed.

**EDUC 461. Middle Level Integrated Methods I: Processes** (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, and full admission status.
A study of knowledge, skills, and processes in an integrative manner that pulls together commonalities among the four areas of concentration in the middle grades. Special emphasis is given to the integrative/interdisciplinary nature of the topics, and special attention is given to adaptation for special needs, including gifted and talented.

**EDUC 462. Middle Level Integrated Methods II: Instruction and Assessment** (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, and full admission status.
Study of instructional methods, integrated/interdisciplinary models of instruction, and assessment as they relate to all subjects and to the diversity and special needs of students in the middle grades.

**EDUC 466. Teaching Language Arts/MGE** (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, and full admission status.
A study of methods, media, and materials for teaching language arts at the middle school level, including theory, research, curriculum, units of study, and evaluation.

**EDUC 468. Teaching English/SEC** (3 hours)
Prerequisite: EDUC 220, 256, 357, 469, and full admission status.
A study of methods, media, and materials for teaching English at the secondary school level, including theory, research, curriculum, units of study, and evaluation. Does not count toward the English major.
EDUC 469. Secondary School Curriculum (3 hours)
Prerequisites: EDUC 220, 256, 357, and full admission status.
The purpose of this course is to study methods, media and materials, curriculum structures, evaluation strategies, lesson and unit planning, and QCCs. Instructional practices appropriate for secondary learners, issues, trends, and relevant research are also studied.

EDUC 474. Advanced Choral Methods (3 hours)
( Same as MUS 474)
This course will encompass the organization of choral music programs at all age levels. Administrative aspects, rehearsal techniques, contest procedures, trip planning, and recruitment/retention methods will be emphasized. Observation and analysis of successful choral programs will also be included.

EDUC 475. Advanced Instrumental Methods (3 hours)
( Same as MUS 475)
This course deals with the organization of public school bands, orchestras, and instrumental programs; organization and administration of the successful marching band program; rehearsal; techniques; instrumental classes; program building and maintenance; contests and trip planning. Observation and analysis of successful instrumental programs in the schools will also be included.

EDUC 476. Teaching Literacy 6-12 (3 hours)
Prerequisites: EDUC 220, 256, 357, and full admission status.
Students will be introduced to theories, research, and practices related to teaching literacy in grades 6-12. The major focus will be on teaching literacy in content areas using all facets of communication skills, plus young adult literature to help develop proficient readers.

EDUC 478. Teaching Literacy for MGE (3 hours)
Prerequisites: EDUC 220, 256, 357, 360, and full admission status.
This course will include an examination of the reading process and materials, strategies, and programs appropriate for teaching literacy for all middle grades learners. Content covered will focus on literacy factors for reading informational texts, the reading/writing connection and young adult literature.

EDUC 480. Field Component IVA - The Holistic Child (4 hours)
Prerequisites: full admission into Teacher Education for Holistic Child Program. Completion of 300-level courses in The Holistic Child Program
This course provides a field based experience for students enrolled in the Holistic Child program. Teacher candidates spend a minimum of 100 clock hours over a ten (10) week period observing and participating in activities related to and associated with young children (P-5) in a regular ed classroom setting or in a special needs classroom setting. Students are required to attend field component seminars as scheduled. Note: grades of satisfactory (S) or unsatisfactory (U). Special fee. Application required.

EDUC 485. Professional Practicum (3 hours)
Prerequisites: Application required, full admission status, successful completion of EDUC 398 and EDUC 399.
This course provides a school-based teaching experience over a minimum period of six weeks and 60 hours for education students. Students will be assigned to diverse public schools. Students are required to attend Practicum seminars. Students will refer to the Teacher Education Handbook for specific policies and requirements. Successful completion of the Practicum is required for entry into Student Teaching. Note: grades of satisfactory (S) or unsatisfactory (U). Special fee.
EDUC 492. Student Teaching (12-15 hours)
Prerequisites: application required, full admission status, and successful completion of all required education courses.
This course provides a full-day teaching experience for certification candidates who submit an application to the Director of Field Experiences by the published deadline. Candidates will be assigned to diverse public schools and will gradually assume responsibility for working with groups and individuals. Student Teachers will participate in classroom teaching and observation, planning and evaluation conferences, and other school-related experiences with guidance provided by the Classroom Teacher(s) and University Supervisor. Each Student Teacher will teach full-time for a minimum of three to five weeks. Several seminars will be held in conjunction with these experiences and will address a variety of topics. Student Teachers will refer to the Teacher Education Handbook for specific policies and requirements. Note: grades of satisfactory (S) or unsatisfactory (U). Special fee.

EDUC 496. Field Component IVB - The Holistic Child (12 hours)
Prerequisites: full admission into Teacher Education for The Holistic Child Program, completion of all required coursework for The Holistic Child Program except corequisite. Corequisite: EDUC 405.
This course provides a field based experience for students enrolled in the Holistic Child program. The course provides a full day, 12 week teaching experience for certificate candidates. Teacher candidates are assigned to diverse public schools and gradually assume responsibility for working with groups and with individuals. Each teacher candidate teaches full-time for a minimum of three to five weeks. Seminars are held in conjunction with this experience and address a variety of topics. Note: grades of satisfactory (S) or unsatisfactory (U). Special fee. Application required.

MATHEMATICS (MATH)

MATH 110. Mathematical Problem Solving (3 hours)
This mathematics course includes basic topics of pre-algebra. The focus will be on developing problem-solving skills through concrete experiences, communication, and a constructivist approach. An integrated lecture/laboratory course. Does not meet general education requirements.

MATH 201. Mathematics: The Language of Engineering (3 hours)
Co-requisite: SCIE 201.
An integrated study of precalculus, science with emphasis on space science, and related principles of engineering. Combining lecture and lab, this course engages students in student-active learning that promotes inductive and deductive critical reasoning. Students learn and apply precalculus concepts and skills as they engage in scientific investigations to discriminate between truth and plausible fiction.

SCIENCE (SCIE)

SCIE 201. Science: The Language of Engineering (3 hours)
Co-requisite: MATH 201.
An integrated study of precalculus, science with emphasis on space science, and related principles of engineering. Combining lecture and lab, this course engages students in student-active learning that promotes inductive and deductive critical reasoning. Students learn and apply precalculus concepts and skills as they engage in scientific investigations to discriminate between truth and plausible fiction.
Townsend School of Music

John H. Dickson, Dean/Professor
Douglas M. Hill, Director of Undergraduate Studies/Professor
John E. Simons, Director of Graduate Studies/Associate Professor

Faculty
John H. Dickson, Douglas M. Hill, Martha L. Malone, Robert W. Parris, John N. Roberts, and Stanley L. Roberts, Professors
Ian H. Altman, Montgomery C. Cole, Carolyn S. Goff, Amy Schwartz Moretti, and John E. Simons, Associate Professors
Richard Kosowski, and Marcus D. Reddick, Assistant Professors
Robert McDuffie, Distinguished University Professor of Music
Adrian Gnam, Artist-in-Residence
Christopher Rex and Paul Murphy, Artist Faculty
Andres Diaz, Sabina Thatcher, David Halen, and Elizabeth Pridgen, Visiting Artists
Lisa Lombardo, Nancy Rehberg, and Marie J. Roberts, Senior Lecturers
Charles Anderson, Michael Andrew, Terence Cantwell, Anne Davis, Mike Pekarek, Virginia Respess, Jonathan Swygert, Kelly Via, Vadim Volynets, and Calista Waddy, Lecturers
Lois Lantz and Lowen Marshall, Professor Emeriti

Mission Statement
Townsend School of Music undergraduate studies fosters excellence in musical learning within the context of a comprehensive university environment. Studies prepare musicians for careers in performance, music education and musical scholarship.

Admission to Undergraduate Studies
An audition is required for incoming students. Prospective music majors should contact the Administrative Assistant to the Dean for an audition appointment. Scholarships are available; students will be considered for such scholarships when they audition. Music students are initially accepted into the School of Music as intended music majors. During the second year of study, each music student who desires to proceed into upper-level study toward a specific music major must request permission to pursue that major using the “Acceptance to Music Major” form. A 3.0 applied music GPA and a 2.0 academic GPA are required to be accepted as a music major. A student may be provisionally accepted with the understanding that the expected GPA levels will be attained within another academic year of study.

First Year Regulation
All intended music majors are expected to begin theory, musicianship, keyboard, large ensemble, and applied music lessons in their freshman year. Therefore, MUS 105 (a and b) and 106 (a and b) are normally scheduled for the freshman year and MUS 256 (a and b) and 257 (a and b) for the sophomore year. Students whose applied music area is other than keyboard and who exempt MUS 109-110 must substitute two hours of music electives, and such students who exempt MUS 209-210 must substitute four hours of music electives.

Transfer and Transient Credit
Transfer credits and advanced placement in music courses will be accepted contingent upon examination. This will ensure that the student is placed in the appropriate music course level for his or her ability. Students who wish to earn transient credit from another institution while enrolled in the BA in Music, BME, or BM Performance program must have
prior approval from the director of undergraduate studies. Neither transfer credit nor transient credit may be used to meet the residency requirement.

**Academic Warning, Probation, and Suspension**

The policies on academic warning, probation, and suspension are specified in the University's undergraduate academic policies. A 3.0 applied music GPA and a 2.0 academic music GPA are required to remain in good standing as a major in music. A student placed on probation must reach the expected GPA levels within another academic year of study. A student deemed to be making insufficient progress for a degree program must be dropped from that program.

**Readmission**

Any student who has left full-time enrollment in a music degree program for a period of two or more years must formally re-apply and re-audition for acceptance back into the School of Music.

**Departmental Honors**

Majors may be selected by the music faculty for School of Music Honors by maintaining an overall 3.5 grade point average in music and presenting a senior project that is pursued and completed on a level significantly higher than would normally be required for a senior project. In the case of the Bachelor of Music in Performance degree, the project must be a recital that is appropriate in repertoire level and performance standard for honors consideration.

**Music Minor**

A minor in music consists of 17 semester hours in the following: five semester hours selected from MUS 160-460, 161-461, 162-462, 163-463, and twelve academic semester hours from other courses in music. Six hours must be earned in courses numbered 300 or above.

**Private Studio Instruction**

A limited number of students can be accepted for individual applied lessons. A special fee is charged for this instruction. Students must be taking other courses at Mercer in order to be eligible to take lessons. Exceptions must be cleared with the Dean of the School of Music.

**Accreditation**

Mercer University is an institutional member of the National Association of Schools of Music (NASM).
**Robert McDuffie Center for Strings (CS)**

**Faculty**
Robert McDuffie, *Distinguished University Professor of Music*
Amy Schwartz Moretti, Director, *Associate Professor*
Christopher Rex and Paul Murphy, *Artist Faculty*
Andres Diaz, Sabina Thatcher, David Halen, and Elizabeth Pridgen, *Visiting Artists*

**Mission**
The Robert McDuffie Center for Strings is a special institute within the Mercer University Townsend School of Music on the Macon campus. It is a highly selective program that prepares string students for success in the real world. Students study with some of the nation's renowned string musicians, receiving music instruction of conservatory quality, while earning an academically well-rounded education.

**Program Description**
The uniqueness of the Robert McDuffie Center for Strings is the versatility it gives students who want conservatory-quality music training along with a well-rounded, high-quality college education that will serve them well throughout their life. While students will receive the rigorous instrumental training needed to achieve success in the music profession, it is not a requirement to major in music to be a student in the Robert McDuffie Center for Strings. The choice of a major and a degree is that of the individual students who will be able to select from a wide range of degrees, majors and academic specializations, including the option to double major.

Every student will have weekly private lessons and chamber music coaching sessions with the Center Artist Faculty and have direct access to each Center Visiting Artist during their regular monthly visits on campus. Students in the Center will participate in private lessons, master classes, chamber music coaching sessions and orchestral section work.

**Admission**
An audition is required. Students interested in the Robert McDuffie Center for Strings must apply for admission to Mercer University and complete application materials for the Center. Students will be considered for scholarships when they audition.

**Mercer University General Education**
Mercer University’s founding vision, articulated by Jesse Mercer in the 1830s, dedicates us to promote free inquiry, religious liberty, and inclusiveness—values consonant with Baptist heritage. University President William D. Underwood underscored that vision in 2006, noting that “...the extent to which a university transforms the lives of individual students, who in turn transform their communities, represents the ultimate measure of a university’s greatness.” To put this transformative vision into practice within the communities we serve, a Mercer University education emphasizes experiences that infuse intellectual growth, cultural understanding, civic responsibility, and moral discernment with practical competencies.

The distinctiveness of their programs and traditions notwithstanding, Mercer University’s undergraduate colleges and schools share learning outcomes that reflect Mercer’s mission to educate the whole person. These undergird the General Education Curricula, which provide the necessary foundation for disciplined study and lifelong learning.
General Education is designed to help students cultivate and refine habits of mind that prepare them to contribute constructively and meaningfully to society. To realize this goal, General Education strives to instill in persons broader perspectives while empowering them to find fuller and richer citizenship in a world in which different cultures, social institutions, and technologies intersect in multiple and diverse ways.

**Four Outcomes of General Education**

A Mercer education emphasizes experiences that foster **intellectual growth, cultural understanding, civic responsibility**, and **moral discernment**. These four interrelated capacities inform the intended outcomes for general education.

**Intellectual growth** may be interpreted to include complexity of thought, integrative and synthesizing ability, quantitative analysis, qualitative analysis, critical inquiry, critical reflection, creative expression, integration of life and learning experiences, self understanding and knowledge, and capacity for continued learning and intellectual growth.

**Cultural awareness** may be interpreted to include global perspective, intercultural perspective, empathy, perspective taking, engaging the other, and cultural appreciation.

**Civic responsibility** may be interpreted to include active responsible citizenship, the ability to engage with problems and issues, civility and respect, collaboration and working in teams, and caring.

**Moral discernment** may be interpreted to include judgment in ambiguous situations, academic integrity, ethical reasoning, ethical behavior, and the ability to act upon reflectively-held convictions.

These broad learning outcomes are achieved, not in the abstract, but in and through the exercise and development of certain specific practical competencies that are infused in these four outcomes of general education.

- Communicating effectively in writing in a variety of modes and settings
- Communicating effectively orally in a variety of modes and settings
- Analyzing observed natural phenomena through the use of scientific reasoning
- Reasoning quantitatively
- Integrating coherently diverse perspectives with knowledge
- Acting perceptively and responsibly in light of the education one has received

As required by the University’s accrediting body, general education programs at Mercer will constitute a minimum of 30 semester hours to include credit hours in humanities/ fine arts, social/ behavioral science, and science/mathematics.

**Townsend School of Music Degrees**

**Bachelor of Music in Performance**

The Bachelor of Music in Performance degree is uniquely designed to allow a student to develop highly specialized skills and knowledge for an instrument or voice. Excellence as performers is the School's goal for all students; those majoring in performance, however, are held to a higher standard of technical ability, artistry, and difficulty than those pursuing the other degrees offered in music.
**Bachelor of Music Education**

The Bachelor of Music Education degree provides undergraduate professional training for students intending careers in elementary through secondary school teaching of music. Students completing this curriculum are prepared for State of Georgia P-12 teaching certification in choral and instrumental music. Excellence in teaching competencies is achieved through specialized music education courses in Townsend School of Music and Tift College of Education.

**Bachelor of Arts in Music**

The Bachelor of Arts in Music degree is specifically designed to permit a student to concentrate on music within the context of a liberal arts program. The unique feature of this degree is the approximately forty-percent degree credits required in music courses. This percentage allows the student ample opportunity to pursue music studies as well as a broad range of liberal arts subjects. Areas of music emphasis include: performance, church music, music history, music theory, composition, and conducting.

**BACHELOR OF MUSIC IN PERFORMANCE**

**Music**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MUS 105a-106a</td>
<td>Music Theory I-II</td>
<td>4</td>
</tr>
<tr>
<td>MUS 105b-106b</td>
<td>Musicianship Skills I-II</td>
<td>2</td>
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<tr>
<td>MUS 256a-257a</td>
<td>Music Theory III-IV</td>
<td>4</td>
</tr>
<tr>
<td>MUS 256b-257b</td>
<td>Musicianship Skills III-IV</td>
<td>2</td>
</tr>
<tr>
<td>MUS 109-110 or 139-140 or 213-214 or 121-122</td>
<td>Class Piano I-II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 209-210 or 241-242</td>
<td>Class Piano III-IV</td>
<td>2</td>
</tr>
<tr>
<td>MUS 340</td>
<td>Basic Conducting</td>
<td>3</td>
</tr>
<tr>
<td>MUS 356</td>
<td>Form and Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MUS 359</td>
<td>Counterpoint</td>
<td>3</td>
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<tr>
<td>MUS 155abc</td>
<td>Vocal Diction I-III (Voice majors only)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 411</td>
<td>Music from Middle Ages through the Early Baroque Period</td>
<td>3</td>
</tr>
<tr>
<td>MUS 412</td>
<td>Music from the Mature Baroque through the Classic Period</td>
<td>3</td>
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<tr>
<td>MUS 413</td>
<td>Music in the Romantic and Post-Romantic Periods</td>
<td>3</td>
</tr>
<tr>
<td>MUS 414</td>
<td>Modern Music, with an Overview of World Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 160-163 or 169</td>
<td>Voice, Piano, Orchestra and Band Instruments or Organ</td>
<td>4</td>
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<tr>
<td>MUS 265-465</td>
<td>Voice</td>
<td>24</td>
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<tr>
<td>MUS 266-466</td>
<td>Piano</td>
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<tr>
<td>MUS 267-467</td>
<td>Organ</td>
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<tr>
<td>MUS 268-468</td>
<td>Orchestra and Band Instruments</td>
<td>24</td>
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<tr>
<td>MUS 271-471</td>
<td>Harpsichord</td>
<td>24</td>
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<tr>
<td>MUS 180</td>
<td>Chamber Music Ensemble (String majors only)</td>
<td>4</td>
</tr>
<tr>
<td>MUS 182, 183, 190, 191, or 192</td>
<td>Large Ensemble (in area of specialization)</td>
<td>8</td>
</tr>
</tbody>
</table>
MUS 311 and 312, 313, 316 or 317 Literature of the Instrument (in area of specialization) .................................................................3
MUS 438 Vocal Pedagogy or MUS 439 Pedagogy of Orchestral Instruments .................................................................3

**Total String Majors** ..................................................................................................................................................86
**Total Other Majors** ................................................................................................................................................82

**General Education**

The music student must take all of the courses in the Common Core of the General Education Program. In addition, the student must complete 12 credit hours from either the Great Books Program or the Distributional Program. If the former is selected, the following courses must be completed from the Great Books Program: GBK 101 and three other GBK courses. If the Distributional Program is selected, the following courses must be completed: from the Behavioral Science, Social Sciences, and Cultural Studies options, one course from Group 1; from the Humanities and Fine Arts options, one course from each of Groups 1, 2, and 3.

**General Electives**

1. Voice majors must take six hours of electives; wind, percussion and guitar majors must take nine hours of electives; string majors must take five hours of electives; keyboard majors must take twelve hours of electives. A maximum of 3 hours in a secondary applied performance area may count as an elective area of study. Credit for secondary applied areas will be given at the rate of 1 hour credit per semester for a half-hour lesson per week.

2. Voice majors are required to take a minimum of 6 hours of a second foreign language (French or German).

**Additional Requirements**

1. All students in this program will be required to pass an examination covering functional keyboard and musicianship skills. It is intended that this requirement be met during the second semester of the sophomore year.

2. A minimum of 72 recitals must be attended in order to graduate.

3. A minimum of 41 hours outside of music is required to graduate.

4. The senior project must be a recital; a junior recital is also required. Students must research and write program notes for both recitals.

5. A special audition, held during the spring jury of the freshman year, is required for admittance to this program.

6. Application for acceptance to this program is normally made by March 1 of the sophomore year.

**BACHELOR OF MUSIC EDUCATION**

**Music**

MUS 105a-106a Music Theory I-II .........................................................................................................................4
MUS 105b-106b Musicianship Skills I-II ..................................................................................................................2
MUS 256a-257a Music Theory III-IV .......................................................................................................................4
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MUS 256b-257b</td>
<td>Musicianship Skills III-IV</td>
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<tr>
<td>MUS 109-110</td>
<td>Class Piano I-II or 139-140 or 213-214 or 121-122</td>
<td>2</td>
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<tr>
<td>MUS 209-210</td>
<td>Class Piano III-IV or 241-242</td>
<td>2</td>
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<tr>
<td>MUS 340</td>
<td>Basic Conducting</td>
<td>2</td>
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<tr>
<td>MUS 341</td>
<td>Advanced Choral Conducting or MUS 342 Instrumental Conducting</td>
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<tr>
<td>MUS 350</td>
<td>Orchestration</td>
<td>3</td>
</tr>
<tr>
<td>MUS 356</td>
<td>Form and Analysis or MUS 359 Counterpoint</td>
<td>3</td>
</tr>
<tr>
<td>MUS 411</td>
<td>Music from Middle Ages through the Early Baroque Period</td>
<td>3</td>
</tr>
<tr>
<td>MUS 412</td>
<td>Music from the Mature Baroque through the Classic Period</td>
<td>3</td>
</tr>
<tr>
<td>MUS 413</td>
<td>Music in the Romantic and Post-Romantic Period</td>
<td>3</td>
</tr>
<tr>
<td>MUS 414</td>
<td>Modern Music, with an Overview of World Music</td>
<td>3</td>
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<tr>
<td>MUS 160-460</td>
<td>Voice</td>
<td>14</td>
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<tr>
<td>MUS 161-461</td>
<td>Piano</td>
<td>14</td>
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<tr>
<td>MUS 162-462</td>
<td>Organ</td>
<td>14</td>
</tr>
<tr>
<td>MUS 163-463</td>
<td>Orchestra and Band Instruments</td>
<td>14</td>
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<tr>
<td>MUS 182, 183</td>
<td>Large Ensemble (choral emphasis)</td>
<td>7</td>
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<tr>
<td>MUS 191, 192</td>
<td>Large Ensemble (instrumental emphasis)</td>
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<td><strong>Total Music</strong></td>
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**Education:**

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>EDUC/MUS 157</td>
<td>Vocal Techniques</td>
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</tr>
<tr>
<td>EDUC/MUS 193 or 194</td>
<td>Lab Band or Lab Choir</td>
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<tr>
<td>EDUC/MUS 215 and 216</td>
<td>Sophomore Practicum I-II</td>
<td>2</td>
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<tr>
<td>EDUC/MUS 221</td>
<td>Performance and Instruction Techniques: Woodwinds</td>
<td>2</td>
</tr>
<tr>
<td>EDUC/MUS 222</td>
<td>Performance and Instruction Techniques: Percussions</td>
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</tr>
<tr>
<td>EDUC/MUS 223</td>
<td>Performance and Instruction Techniques: Bass</td>
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<tr>
<td>EDUC/MUS 224</td>
<td>Performance and Instruction Techniques: Strings</td>
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<td>EDUC/MUS 370</td>
<td>The Elementary School Music Specialist</td>
<td>3</td>
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<tr>
<td>EDUC/MUS 372</td>
<td>The Secondary School Music Program-Methods and Techniques</td>
<td>3</td>
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<tr>
<td>EDUC/MUS 474 or 475</td>
<td>Advanced Choral or Instrumental Methods</td>
<td>3</td>
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<tr>
<td>EDUC 220</td>
<td>Foundations of Education</td>
<td>3</td>
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<tr>
<td>EDUC 256</td>
<td>Adolescent Health and Development</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 283</td>
<td>Fundamentals of Special Education</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 357</td>
<td>Psychology of Learning</td>
<td>3</td>
</tr>
<tr>
<td>EDUC 492</td>
<td>Student Teaching</td>
<td>15</td>
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<tr>
<td><strong>Total Education</strong></td>
<td></td>
<td><strong>48</strong></td>
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</tbody>
</table>
Education

Students who intend to teach music at either the elementary or secondary level. Mercer’s program in Music Education (P-12) is accredited by the State of Georgia, National Council for Accreditation of Teacher Education and National Association of Schools of Music. The requirements include the following courses: EDUC/MUS 157, 193 or 194, 215, 216, 221, 222, 223, 224, 370, 372, 474 or 475, as well as EDUC 220, 256, 283, 357, 492. Music Education majors must meet all the requirements for the Tift College of Education to be eligible for certification.

General Education

The music student must take all of the courses in the Common Core of the General Education Program. Additional credits may be earned in either the Distributional or Great Books programs to reach the minimum general education requirement of 30 hours. EDUC 357 or 256 may substitute for PSY 101.

Additional Requirements

1. A minimum of 72 recitals must be attended in order to graduate.
2. A minimum of 30 hours outside of music is required to graduate.
3. A senior project is required as described above.
4. All students in this program will be required to pass an examination covering functional keyboard and musicianship skills. It is intended that this requirement be met during the second semester of the sophomore year.
5. Application for acceptance into either the instrumental or vocal track of this program normally is made by March 1 of the sophomore year.

BACHELOR OF ARTS IN MUSIC

Music

MUS 105a-106a Music Theory I-II.................................................................4
MUS 105b-106b Musicianship Skills I-II.....................................................2
MUS 256a-257a Music Theory III-IV............................................................4
MUS 256b-257b Musicianship Skills III-IV....................................................2
MUS 109-110 Class Piano I-II or 139-140 or 121-122....................................2
MUS 209-210 Class Piano III-IV or 241-242.................................................2
MUS 356 Form and Analysis or MUS 359 Counterpoint..............................3

Three courses from the following:

MUS 411 Music from Middle Ages through the Early Baroque Period..............3
MUS 412 Music from the Mature Baroque through the Classic Period...............3
MUS 413 Music in the Romantic and Post-Romantic Periods..........................3
MUS 414 Modern Music, with an Overview of World Music..........................3

Seven semester hours from the following:

MUS 160-460 Voice..................................................................................1-2
MUS 161-461 Piano..................................................................................1-2
MUS 162-462 Organ..................................................................................1-2
MUS 163-463 Orchestra and Band Instruments.............................................................1-2

Three additional academic Music courses. (See School of Music Student Handbook for
description of courses).................................................................................................7-9

Total Music....................................................................................................................45-47

General Education

Music majors in the B.A. program will meet all the general education and additional
depth requirements of the College of Liberal Arts.

Additional Requirements

1. A minimum of 72 recitals must be attended in order to graduate.
2. A minimum of 76 hours outside of music is required to graduate.
3. A senior project is required as described above.
4. The student must participate regularly in the Mercer Singers, the Mercer University
   Orchestra, or the Mercer Wind Ensemble or some other regularly organized per-
   forming ensemble in the area of specialization designated by the Dean.
5. All students in this program will be required to pass an examination covering func-
   tional keyboard and musicianship skills. It is intended that this requirement be met
during the second semester of the sophomore year.
6. Application for acceptance to this program is normally made by March 1 of
   the sophomore year.

UNDERGRADUATE MUSIC COURSES

MUS 103. Acoustical Foundations of Music ................................................................. (2 hours)
(Same as PHY 103)
A study of the relevant concepts of physics as applied to the acoustical aspects of music
reproduction, listening environments, and hearing. A lecture and laboratory course.

MUS 104. Elements of Music ....................................................................................... (3 hours)
An introduction to the building materials of music, intended for students with little or no musi-
cal background. Principal topics include scales and keys, rhythm, harmony, and form in
music, as well as ways in which these combine to produce satisfying and logical results.
Class sessions include lectures, listening to music, and a variety of participatory activities.
Not open to music majors.

MUS 105a-106a. Music Theory I-II ............................................................................... (2 hours)
Prerequisite: each course is a prerequisite for the next one in the sequence.
Review of theory fundamentals. Introduction to the tonal procedures of the Common
Practice period including diatonic harmony, part-writing, simple analysis, and two-part coun-
terpoint.

MUS 105b-106b. Musicianship Skills I-II ...................................................................... (1 hour)
Prerequisite: each course is a prerequisite for the next one in the sequence.
Ear training, sight singing, and supportive keyboard harmony. To be taken concurrently with
MUS 105a and 106a.
MUS 109-110. Class Piano I and II (1 hour)
Prerequisite: each course is a prerequisite for the next one in the sequence.
Basic musicianship through elementary keyboard skills. Includes basic playing skills such as reading, fingering, technique, and elementary repertoire. Also includes functional and theoretical skills such as intervals, chord spelling, chord types, simple progressions, voice leading, and harmonizations. Courses will meet two hours weekly. To be taken concurrently with MUS 105a-106a by students who do not exempt keyboard lab.

MUS 121. Sightreading Skills I (1 hour)
This course will be required of all BA and BM Freshman Piano majors. Students will take this course the first year of study in order to help improve sight reading and functional piano skills. Focus will be on open score reading, vocal and instrumental accompaniment study, chamber music literature study, and sight reading of piano literature in general.

MUS 122. Sightreading Skills II (1 hour)
Prerequisite: MUS 121
This course continues the development of keyboard skills from MUS 121. To be taken concurrently with MUS 106a by students whose applied area is piano.

MUS 139. Organ/Harpsichord Skills I (1 hour)
This course concentrates on non-cantus firmus based and continuo improvisational skills. To be taken concurrently with 105a by students whose applied area is organ/harpsichord.

MUS 140. Organ/Harpsichord Skills II (1 hour)
This course continues the development of keyboard improvisational skills from the MUS 139. To be taken concurrently with 106a by students whose applied area is organ/harpsichord.

MUS 151. Understanding Music (3 hours)
A non-technical course designed for those who have little or no musical training. Elements of music, contributions and musical style of major composers, and characteristic styles and forms of the various cultural periods will be emphasized. Not open to music majors.

MUS 152-153. Jazz Improvisation I-II (1 hour)
Prerequisite: ability to play and understand major scales.
All major or non-major instruments and voice types will gain knowledge in the basic theory of jazz harmony and melody. They will learn the language of jazz improvisation through the study of prescribed melodic patterns that can be placed in common chord progressions in jazz music. The objective of this course is to enable students to be creative in music without notated pitches.

MUS 155a. Vocal Diction I (1 hour)
Introduction to the diction of English and Italian. Pronunciation taught will be based on the International Phonetic Alphabet.

MUS 155b. Vocal Diction II (1 hour)
Introduction to the diction of German. Pronunciation taught will be based on the International Phonetic Alphabet.

MUS 155c. Vocal Diction III (1 hour)
Introduction to the diction of French. Pronunciation taught will be based on the International Phonetic Alphabet.
MUS 157. Vocal Techniques  
(Same as EDUC 157)  
(2 hours)
Development of individual performance skills in voice. Instruction will broaden pedagogical understanding and provide group vocal techniques and methods for elementary and secondary school music teachers and for students interested in improving their individual singing voice. Survey and evaluation of materials related to vocal development.

MUS 209-210. Class Piano III and IV  
(1 hour)
Prerequisite: MUS 110 or its equivalent, as determined by placement tests.
Each course is a prerequisite for the next one in the sequence. Advanced musicianship through keyboard skills. Advanced reading skills and intermediate level repertoire will be stressed along with functional and theoretical skills such as harmonizations, modulation, realization of figured bass, and accompanying. Courses will meet two hours weekly. To be taken concurrently with MUS 256a-257a by students who complete or exempt MUS 109-110 unless MUS 209-210 are exempted as well.

MUS 213. Organ/Harpsichord Skills III  
(1 hour)
This course concentrates on cantus firmus based and continuo improvisational skills. To be taken concurrently with MUS 256a by students whose applied area is organ/harpsichord.

MUS 214. Organ/Harpsichord Skills IV  
(1 hour)
A course examining the organ literature of the twentieth century, with emphasis on American repertoire, and improvisation in contemporary styles. To be taken concurrently with MUS 257a by students whose applied area is organ.

MUS 215. Sophomore Practicum I  
(Same as EDUC 215)  
(1 hour)
Sophomore Practicum I will meet each spring semester on a TBA schedule. Each student enrolled will be assigned to various elementary schools in the region for 1-2 hours weekly. At these schools the student will observe the cooperating teacher and engage in minor teaching as appropriate for the situation and experience level of the student. A portfolio of each observation/teaching experience will be maintained for each school visit.

MUS 216. Sophomore Practicum II  
(Same as EDUC 216)  
(1 hour)
Sophomore Practicum II will meet each fall semester on a TBA schedule. Each student enrolled will be assigned to various secondary schools (vocal and instrumental) in the region for 1-2 hours weekly. At these schools the student will observe the cooperating teacher and engage in minor teaching as appropriate for the situation and experience level of the student. A portfolio of each observation/teaching experience will be maintained for each school visit.

MUS 221. Performance and Instruction Techniques: Woodwinds  
(Same as EDUC 221)  
(2 hours)
Development of personal performance skills on flute, clarinet, saxophone, oboe and bassoon; knowledge of the technical considerations of the other members of the flute, clarinet, and saxophone families of instruments. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.
MUS 222. Performance and Instruction Techniques: Percussion (2 hours)
(Same as EDUC 222)
Development of personal performance skills on snare drum, timpani, mallet instruments and other commonly used percussion instruments. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.

MUS 223. Performance and Instruction Techniques: Brass (2 hours)
(Same as EDUC 223)
Development of personal performance skills on cornet or trumpet, horn, trombone, euphonium, and tuba. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.

MUS 224. Performance and Instruction Techniques: Stringed Instruments (2 hours)
(Same as EDUC 224)
Development of personal performance skills on violin, viola, violoncello, and double bass. Instruction in methods and techniques for elementary and secondary school music teachers. Survey and evaluation of materials and equipment.

MUS 241. Collaborative Piano Skills I (1 hour)
This course will be required of all Sophomore Piano majors. Focus will be on the study of technical and artistic skills required as a collaborative pianist. Practical participation and performance of standard vocal and instrumental literature will be required. Non majors may audition to register for the class.

MUS 242. Collaborative Piano Skills II (1 hour)
Prerequisite: MUS 241
This course continues the development of keyboard skills from MUS 241. To be taken concurrently with MUS 256a by students whose applied area is piano. Focus will be on the study of technical and artistic skills required of a collaborative pianist. Practical participation and performance of vocal literature and instrumental literature will be required with particular emphasis given to German lieder and French mélodie.

MUS 245. Piano Pedagogy I (1 hour)
This course focuses on elementary pedagogical skills for the Piano major. Practical participation is required.

MUS 246. Piano Pedagogy II (1 hour)
Prerequisite: MUS 245
This course continues the development of pedagogical skills for the Piano major. Practical participation is required.

MUS 256a-257a. Music Theory III-IV (2 hours)
Prerequisite: MUS 106a.
Each course is a prerequisite for the next one in the sequence. Continuation of harmonic practices, to include chromatic harmony, modulation, analysis, and two-part counterpoint.

MUS 256b-257b. Musicianship Skills III-IV (1 hour)
Prerequisite: MUS 106b.
Each course is a prerequisite for the next one in the sequence. Continuation of ear training, sight singing, and supportive keyboard harmony. To be taken concurrently with MUS 256a and 257a.
MUS 258-259. Beginning Composition (1 hour)
Prerequisite: MUS 106a or permission of the instructor.
Instruction designed to broaden the musical horizon, to introduce students to a wide range of contemporary styles and techniques, and to utilize this knowledge successfully in composition projects.

MUS 311. Piano Literature I (2 hours)
This course will be an in-depth survey of keyboard literature from the fourteenth-century through the mid-nineteenth century. Primary focus will be from the late Baroque works through the mid-Romantic masterworks.

MUS 312. Piano Literature II (1 hour)
This course will be an in-depth survey of piano literature from the late Romantic through the twentieth-century. Primary focus will be on those works which have become staples of the repertoire as well as various twentieth-century schools of composition.

MUS 313. Literature and Materials for Organ/Harpsichord (3 hours)
This course focuses on keyboard literature from its beginning to the organ literature of the present.

MUS 316. Literature of the Instrument (3 hours)
The study, analysis and cataloguing of solo works, chamber works, and other ensemble works for the student's major instrument. Interpretation, literature, and pedagogical materials will be covered.

MUS 317. Song Literature (3 hours)
German, French, and English song will be studied. Emphasis will be on the contributions of major composers of the art song and the development of repertoire for voice students.

MUS 320. Sacred Vocal Literature (3 hours)
A study of music for solo voice on sacred texts. The topic is approached chronologically with discussion of the earliest traditions of solo singing in the context of Christian worship, of applicable repertoire from the late sixteenth and early seventeenth centuries, of the so-called sacred art song of the nineteenth and twentieth centuries, and a broad range of cantata and oratorio arias. Larger works (e.g., song cycles and solo cantatas) and repertoire for specific occasions and purposes within the church year will also be discussed. Format will include lectures, listening, and lab performances.

MUS 331. Church Music Methods (2 hours)
A study of choral and instrumental repertoire for use in churches; discussion of topics pertaining to the administration of church music programs, church staff relationships, children's choir techniques, and others. Format will include lectures, reading sessions, and class projects.

MUS 332. History of Church Music (2 hours)
A chronological and stylistic survey of various forms of church music conducted within the context of church history. Areas covered will include the early Christian era and the rise of hymnology, the Reformation and Counter-Reformation, developments resulting from the evolution of various Protestant groups, text-music relationships, and trends of church music in the 20th century.

MUS 336. Advanced Collaborative Piano Skills I (1 hour)
This course continues the development of the art of accompanying. Focus on the study of advanced literature will include such works as Schubert song cycles, woodwind and string sonatas, operatic aria orchestral reductions, Baroque continuo and recitative. Practical participation and performance of assigned literature will be required.
MUS 337. Advanced Collaborative Piano Skills II (1 hour)
This course continues the development of study in MUS 336. Practical participation and performance of assigned literature will be required.

MUS 340. Basic Conducting (2 hours)
Prerequisites: MUS 105a and 105b.
A study of the basic techniques of conducting a musical ensemble. Two class sessions plus a one-hour practicum each week.

MUS 341. Advanced Choral Conducting and Literature (2 hours)
Prerequisite: MUS 340.
A study of choral rehearsal procedure including ways of obtaining the proper balance, tone, and other properties of the choral sound. A survey of the choral music and performance practice of the various stylistic periods will be included. Two class sessions plus a one-hour practicum each week.

MUS 342. Advanced Instrumental Conducting and Literature (2 hours)
Prerequisite: MUS 340.
Analysis of wind ensemble literature of various styles and periods to determine interpretive dimensions; proper rehearsal and baton techniques will be emphasized. Two 75 minute class sessions each week.

MUS 350. Orchestration (3 hours)
Prerequisites: MUS 105a and 105b, or permission of the instructor.
It is also recommended that the student have several years of successful experience in band or orchestra performance; in lieu of this, MUS 221 through 224 are recommended. Acquiring working knowledge of standard band and orchestral instruments regarding playing ranges, technical limitations, and tone-color possibilities in solo and combination. Guidance and practice in scoring for various combinations of instruments. Performance of class work when practical.

MUS 356. Form and Analysis (3 hours)
Prerequisite: MUS 257a.
The study of melodic and phrase procedures, leading to the examination of binary and ternary structures. Analysis of representative examples of the larger forms, including sonata, rondo, variations, etc. Study of important twentieth century concepts, including extended tonality, neo-classicism, atonality, and serialism, as well as recent compositional developments.

MUS 357. Music Technology (3 hours)
Prerequisite: MUS 105, MUS 151, or permission of instructor.
A survey of techniques used in the creation of computer music. Students acquire abilities with hardware and software for notation, MIDI sequencing, patch editing, algorithmic composition, synthesis, digital recording, and sound editing. Supplemental material on acoustic and history and repertoire of electroacoustic music will be included in lectures, readings, and listening assignments. Emphasis placed on practical experience in the school's computer music lab.

MUS 359. Counterpoint (3 hours)
Prerequisite: MUS 257a.
Contrapuntal technique of the eighteenth century. Students acquire written skills in a variety of texture and genres common to Baroque music, with an emphasis on two and three-part imitative counterpoint. Includes analysis of representative literature.
MUS 370. The Elementary School Music Specialist (3 hours)
(Same as EDUC 370)
Methods and techniques for structuring and guiding music education in the elementary school. Particular attention to the development of children's voices. Acquaintance with Orff and Kodaly approaches. Field study in elementary school classrooms. Intended for music education majors.

MUS 372. The Secondary School Music Program - Methods and Techniques (3 hours)
(Same as EDUC 372)
Effective procedures for recruiting, organizing, and maintaining a successful program of vocal and instrumental music instruction and performance in the secondary schools. Discussion of philosophies of music education. Field study of successful programs and discussions with leaders in the music education profession will be included.

MUS 411. Music From the Middle Ages through the Early Baroque Period (3 hours)
A study of music history from the Middle Ages through the late seventeenth century, with some attention to the music of the ancient Greeks. Stylistic developments, musical forms, and contributions of representative composers of the Middle Ages, Renaissance, and the Early Baroque Era are discussed.

MUS 412. Music from the Mature Baroque through the Classic Period (3 hours)
Developments in music during the eighteenth century, with particular emphasis given to major French, German, and Italian baroque composers, to the galant style, and to Viennese classicism.

MUS 413. Music in the Romantic and Post-Romantic Periods (3 hours)
Stylistic developments of the nineteenth century and their implications for the future. Romanticism and a number of post-romantic trends, with discussion of representative composers from the mature Beethoven to Richard Strauss and his contemporaries.

MUS 414. Modern Music, with an Overview of World Music (3 hours)
Development of music from the pre-World War I period to the present day, followed by an introduction to ethnomusicology and a survey of topics in traditional and non-western musical cultures.

MUS 438. Vocal Pedagogy (3 hours)
Designed for the potential voice teacher, this course will survey the literature and vocal techniques used in private and class instruction of voice students. Those enrolled will teach beginning voice students under the supervision of the instructor.

MUS 439. Pedagogy of Orchestral Instruments (3 hours)
Prerequisite: permission of the applied music instructor.
Survey of the pedagogical history, pedagogical literature, and technical methods of the given instrument. Teaching methods explored for private and group settings. Supervised teaching of elementary students is required.

MUS 474. Advanced Choral Methods (3 hours)
(Same as EDUC 474)
This course will encompass the organization of choral music programs at all age levels. Administrative aspects, rehearsal techniques, contest procedures, trip planning, and recruitment/retention methods will be emphasized. Observation and analysis of successful choral programs will also be included. Intended for Music education majors, vocal emphasis.
MUS 475. Advanced Instrumental Methods (3 hours)  
*(Same as EDUC 475)*  
This course deals with the organization of public school bands and orchestras, organization and administration of the successful marching band program, rehearsal, techniques, instrumental classes, program building and maintenance, contests and trip planning. Observation and analysis of successful instrumental programs in the schools will also be included. Intended for Music education majors, instrumental emphasis.

MUS 478. Opera Workshop (2 hours)  
Prerequisites: consent of voice faculty and permission of director. Audition required.  
The ensemble performs Mercer University Opera productions. At least one fully staged and costumed production is given each year, ranging from entire operas to scenes from standard opera and music theatre works. May be repeated for a total of 6 hours.

MUS 480. Special Topics in Music (Subtitle) (1-3 hours)  
Prerequisite: junior or senior status, or consent of instructor.  
A study of some significant topic in music that is not otherwise covered in the Townsend School of Music course offerings. The class carries variable course credit (1 to 3 hours) dependent on the proposed course, and may be repeated with a different topic. Courses are created, approved and assigned course credit in the following manner:

- The professor and student create a proposal for the special topics class using the Special Topics Form located in the music office.
- The completed form is submitted to the Director of Undergraduate Studies at least one semester in advance.
- The Director of Undergraduate Studies will submit the proposal to the Dean for review.
- If approved, the Director of Undergraduate studies will assign the credit hours of the special topics course and create the subtitle of the course.

**Applied Music Courses**

**MUS 156. Concert Practice** (0 hour)  
A weekly performance seminar, required of every student majoring in music for each semester of official enrollment at Mercer University. The class meets for two hours per week. Individual performance skills are developed in a nurturing environment where faculty openly discuss the students’ presentations. Each student normally performs in class at least twice per semester. Classwork culminates in a public student recital each month. (S/U grading)

The following applied music courses are open to general education students as well as to music majors. One hour of academic credit is awarded for one thirty-minute lesson each week during the semester; two hours of academic credit are awarded for one sixty-minute lesson each week during the semester. Students who enroll in these courses are charged an applied music fee; the fee is assessed at fifteen 30-minute or 60-minute lessons, according to the number of hours for which the student has enrolled.

**MUS 160-260-360-460. Voice** (1-2 hours)  
Prerequisite: permission of instructor.  
Voice majors register for 2 hours credit. In addition to their private lessons, students may be required to attend a one-hour class session each week. Students must earn 4 hours in each number before moving to the next higher number.
MUS 161-261-361-461. Piano (1-2 hours)
Piano majors register for 2 hours credit. Students must earn 4 hours in each number before moving to the next higher number.

MUS 162-262-362-462. Organ (1-2 hours)
Prerequisite: pianistic ability satisfactory to instructor.
Organ majors register for 2 hours credit. Students must earn 4 hours in each number before moving to the next higher number.

MUS 163-263-363-463. Orchestra and Band Instruments (1-2 hours)
Instrumental majors register for 2 hours credit. Students must earn 4 hours in each number before moving to the next higher number.

A - Flute & Piccolo
B - Oboe
C - Bassoon
D - Clarinet
E - Saxophone
J - Cornet & Trumpet
K - Horn
L - Trombone
M - Euphonium
N - Tuba
R - Percussion
T - Harp
V - Guitar
W - Violin
X - Viola
Y - Violoncello
Z - Doublebass

MUS 164-264-364-464. Composition (1-2 hours)
Prerequisite: MUS 258-259 or permission of instructor.
Instruction designed to impart specific objective compositional techniques leading to a synthesis of musical elements through original compositional projects. Includes aural and intellectual exposure to a broad range of contemporary compositional styles. Students must earn 4 hours in each number before moving to the next higher number.

MUS 169-269-369-469. Harpsichord (1-2 hours)
Harpsichord majors register for 2 hours credit. Students must earn 4 hours in each number before moving to the next higher number.

The following applied music courses are open only to students who have been admitted into one of the Bachelor of Music programs. These courses consist of one sixty-minute lesson per week during the semester. Students who enroll in these courses are charged the applied music fee for fifteen 60-minute lessons in the semester. Academic credit in these courses, however, is awarded at four hours per course and reflects the increase in practice and performance outside the scheduled lesson time required of students enrolled at this level of music training.

MUS 265-365-465. Voice (4 hours)
Prerequisite: admission to one of the Bachelor of Music programs.
Credit: 60 minute lesson per week, 4 hours credit per semester. In addition to their private lessons, students may be required to attend a one-hour class session each week. Students must earn 8 hours in each number before moving to the next higher number.

MUS 266-366-466. Piano (4 hours)
Prerequisite: admission to one of the Bachelor of Music programs.
Credit: Same as MUS 265. Students must earn 8 hours in each number before moving to the next higher number.

MUS 267-367-467. Organ (4 hours)
Prerequisite: admission to one of the Bachelor of Music programs.
Credit: Same as MUS 265. Students must earn 8 hours in each number before moving to the next higher number.
MUS 268-368-468. Orchestra and Band Instruments (4 hours)
Prerequisite: admission to one of the Bachelor of Music programs.
Credit: Same as MUS 265. Students must earn 8 hours in each number before moving to the next higher number.

MUS 271-371-471. Harpsichord (4 hours)
Prerequisite: admission to one of the Bachelor of Music programs.
Credit: Same as MUS 265. Students must earn 8 hours in each number before moving to the next higher number.

Center for Strings

MUS 16CW. Violin (Variable 1-2 hours)
MUS 16CX. Viola (Variable 1-2 hours)
MUS 16CY. Cello (Variable 1-2 hours)
MUS 26CW-36CW-46CW. Violin (4 hours)
MUS 26CX-36CX-46CX. Viola (4 hours)
MUS 26CY-36CY-46CY. Cello (4 hours)

Performing Ensembles

MUS 180. Chamber Music Ensemble (1 hour)
Prerequisite: permission of the instructor.
Chamber Music is course designed to explore and perform the rich literature for various instrument combinations from the Renaissance to the present. The primary focus is to explore such traditional ensemble repertoire as piano trios, string trios, piano quartets, etc. Open to all students. An audition/interview is required.

MUS 181. Guitar Ensemble (1 hour)
Prerequisite: permission of the instructor.
Guitar ensemble is a course designed to explore and perform literature from the Renaissance to the present. The primary focus is to explore the musical literature for an ensemble of guitars. Open to all students. An audition/interview is required.

MUS 182. Mercer Singers (1 hour)
This mixed ensemble is highly selective and consists of approximately thirty to forty students. This choir performs a cappella and other standard repertoire appropriate for a touring group. Open to all students. An audition is required.

MUS 183. Women’s Chamber Choir (1 hour)
This vocal chamber ensemble performs a wide variety of choral music: madrigals, motets, and music theatre selections. In addition, the group participates in departmental and off-campus performances, as well as appearances in the weekly on-campus chapel services. An audition is required.

MUS 184. Flute Choir (1 hour)
Prerequisite: permission of instructor.
Flute Choir is a course designed to explore and perform flute music from the Renaissance through the twenty-first century. The primary focus is to explore the musical literature for an ensemble of flutes. Open to all students. An audition/interview is required.
MUS 185. Jazz Ensemble (1 hour)
The Jazz Ensemble is an eighteen-member group in which students are instructed in the performance of jazz in such styles as swing, bebop, funk, rock, shuffle, and ballad. Open to all students. An audition/interview is required.

MUS 186. Brass Ensemble (1 hour)
Prerequisite: permission of instructor.
Brass Ensemble is a course designed to explore and perform brass music from the Renaissance through the twenty-first century. The primary focus is to explore a large body of brass music literature in the various instrumentations for which literature exists (brass choir, brass quintet, tuba quartet, horn quartet, and trombone choir). Open to all students. An audition/interview is required.

MUS 187. Woodwind Ensemble (1 hour)
Prerequisite: permission of instructor.
Woodwind Ensemble is a course designed to explore and perform woodwind music from the Renaissance through the twenty-first century. The primary focus is to explore a large body of woodwind music literature in the various instrumentations for which literature exists (clarinet ensemble, flute choir, woodwind quintet, and saxophone quartet). Open to all students. An audition/interview is required.

MUS 188. Percussion Ensemble (1 hour)
Prerequisite: permission of instructor.
Percussion Ensemble is a course designed to explore and perform percussion music from the Renaissance through the twenty-first century. The primary focus is to explore a large body of percussion music literature in the various instrumentations for which literature exists. Open to all students. An audition/interview is required.

MUS 189. Jazz Combo (1 hour)
Prerequisite: permission of instructor.
Jazz Combo is a course designed to explore and perform jazz music of all styles from 1920 to the present. The ensemble is confined to standard instrumentation: trumpet, trombone, saxophone, trap set, bass guitar, and piano. The number of jazz combos in a given quarter will not be limited. The primary focus will be to explore a large body of jazz combo music literature. Open to all students. An audition/interview is required.

MUS 190. Mercer Men’s Choir (1 hour)
This vocal ensemble performs a wide variety of choral music: madrigals, motets, and music theatre selections. In addition, the group participates in school and off-campus performances, as well as appearances in the weekly on-campus chapel services. An audition is required.

MUS 191. Wind Ensemble (1 hour)
This organization of wind and percussion musicians perform music composed for full band as well as various chamber ensembles. Due to its flexible instrumentation, the ensemble performs a wide range of repertoire from the Renaissance to the present. In addition, guest soloists, conductors, and composers of international acclaim regularly appear in concert with this ensemble. Open to all students. An audition/interview is required.

MUS 192. Mercer University Orchestra (1 hour)
The Mercer Orchestra is a high quality chamber orchestra which rehearses on a regular schedule and performs at least twice a semester. The repertoire is chosen from standard orchestral literature and includes student, faculty and guest artists and conductors. The orchestra plays for the annual International Conductors Workshop held at Mercer University. Open to all students. An audition/interview is required.
MUS 193. Lab Band  (0 hour)
Lab Band will meet spring semester biannually for one hour each week within the meeting time of MUS 342, Advanced Instrumental Conducting. All freshman wind and percussion majors will be required to participate in lab band. The lab band will serve as a rehearsal techniques ensemble for the student conductors enrolled in MUS 342. Non music majors could enroll with permission of the instructor only.

MUS 194. Lab Choir  (0 hour)
Lab Choir will meet spring semester biannually for one hour each week within the meeting time of MUS 341 Advanced Choral Conducting. All freshman voice majors would be required to participate in lab choir. The lab choir will serve as a rehearsal techniques ensemble for the students enrolled in MUS 341. Non music majors could enroll with permission of the instructor only.

Credit Limitation: All credit hours earned in MUS 180 through MUS 192 will appear on the student’s transcript but no more than eight such credits will count toward the hours required to graduate.
Graduate Studies

Mercer University is committed to providing graduate degree programs, as well as undergraduate and professional education. Mercer offers programs leading to numerous graduate degrees including:

Stetson School of Business and Economics (specific programs offered in Macon, Atlanta, Savannah, and/or Henry County)
- Master of Business Administration
- Master of Accountancy
- Executive Master of Business Administration
- Professional Master of Business Administration
- Master of Accountancy

School of Engineering (specific programs in Macon or through distance learning)
- Master of Science
- Master of Science in Engineering

Tift College of Education (specific programs offered in Macon, Atlanta, Savannah, and/or Henry County)
- Master of Education
- Master of Arts in Teaching
- Specialist in Education
- Doctor of Philosophy in Educational Leadership

Townsend School of Music (Macon)
- Master of Music (Conducting, Performance, Church Music)

Townsend School of Music and McAfee School of Theology (Macon/Atlanta)
- Master of Divinity with a Concentration in Church Music

College of Continuing and Professional Studies (Atlanta)
- Master of Science in Counseling
- Master of Science in School Counseling
- Master of Science in Public Safety Leadership

Georgia Baptist College of Nursing (Atlanta)
- Master of Science in Nursing

School of Pharmacy and Health Sciences (Atlanta)
- Master of Medical Science (Physician Assistant)

School of Medicine (Macon)
- Master in Family Therapy
- Master of Public Health
- Master of Science in Anesthesia

McAfee School of Theology (Atlanta)
- Master of Divinity
  - with various concentrations and joint degree options
- Doctor of Ministry

Admission to Graduate Study

All persons who wish to enter one of the graduate programs at Mercer University must submit a formal application to the school which sponsors the desired degree program. Certain basic qualifications must be met for admission to graduate programs. All programs
require that students hold a bachelor’s degree from an accredited college or university with a specified minimum undergraduate grade point average. Graduate admissions tests appropriate to the particular academic program are usually required. Specific requirements for each graduate program are given with the description of that program.

**International students** must provide a complete record of all previous schooling. This must include a record of secondary schooling that shows the dates attended, grades achieved or examinations passed, and the student’s rank in class, if available. Official transcripts must be accompanied by a certified English translation. Three reference letters, preferably from instructors in the undergraduate school(s) attended, are required, along with a personal vita which should include all work experience, research study and experience, and professional development objectives. A statement of financial support must be obtained and submitted.

Proficiency in English must be established in one of the following ways:

1. Qualified students who present a score of 550 or above on the TOEFL (213 or above on the computer version) will be admitted to the University. For students who desire additional language study after being admitted to the University, English Language Institute (ELI) short courses are available on the Atlanta campus in specific skill areas.

2. Qualified students who present a TOEFL score below 550 or have no TOEFL score may be admitted conditionally, contingent upon their successful completion of the Mercer University English Language Institute (MUELI). With the permission of the student's academic advisor, an ELI student may register for up to 6 credit hours while completing the upper levels of MUELI.

**Residency Requirements**

To receive a graduate degree from Mercer, students must complete a minimum of 75 percent of the credit hours required for conferral of the degree in residence at Mercer.

**Transfer and Transient Credit**

Students may receive limited credit for graduate courses taken at another institution, either as transfer or transient credit. The number of hours accepted as transfer and transient credit varies by program, but in no instance may it exceed 25 percent of the credit hours required for the graduate degree. Credit for transfer or transient courses may be awarded under the following conditions: (1) the courses were taken at a graduate degree granting institution accredited by a regional accrediting body; (2) the courses were graduate level courses, applicable to a graduate degree; (3) the courses were taken in residence and not by correspondence; (4) grades of at least B were received in the courses; (5) the courses may not have been completed more than five years prior to enrolling in graduate studies at Mercer; and (6) the courses have not been applied for credit to a degree previously earned.

If a student wishes to transfer credits earned at a foreign institution to his/her record at Mercer, the student must supply the Registrar's Office with an official copy (still sealed in the original envelope) of a credit evaluation from a reputable U.S. evaluation service; the evaluation should include all of the credits that the student wishes to transfer to Mercer. Once the Registrar's Office receives an official evaluation, the student's foreign credits will be reviewed to see if they are eligible for transfer to the student's Mercer degree. Please note that the registrar makes the final decision when accepting credits from a foreign institution.

**Graduate Course Load**

Graduate students in the Tift College of Education, the School of Engineering, the Stetson School of Business and Economics, the Georgia Baptist College of Nursing, the
Townsend School of Music, and the College of Continuing and Professional Studies will be considered “full-time” for purposes of eligibility for financial aid, veterans’ benefits, etc., if they are enrolled for 9 credit hours in a semester.

In the School of Medicine, students in the Master in Family Therapy and Master of Public Health programs are considered full-time if they are enrolled for 6 credit hours per semester in particular years of the program.

Full-time status in other graduate programs is outlined in the corresponding catalogs. Full-time status does not fall below 6 credit hours per semester for any graduate program.

**Graduate Level Courses**

**Stetson School of Business and Economics**
- 500-599: First-level graduate courses
- 600-699: Graduate courses designed for graduate students only
  
  Courses are generally 3 credit hours each.

**School of Engineering**
- 500-599: First-level graduate courses; may also be taken by qualified undergraduates
- 600-699: Advanced-level graduate offerings; not normally open to undergraduates
  
  Courses are generally 3 credit hours each.

**Tift College of Education**
- 500-599: Post-baccalaureate initial certification only; non-degree credit
- 600-699: Master of Education level classes
- 700-799: Education Specialist level classes
- 800-899: Doctoral level classes
  
  Courses are generally 3 credit hours each.

**Townsend School of Music**
- 500-599: Graduate level offerings in Applied and ensemble Areas
- 600-699: Master of Music course offerings
- 700-799: Graduate level offerings co-listed with McAfee School of Theology

**College of Continuing and Professional Studies**
- 600-699: Master of Science level classes

**Georgia Baptist College of Nursing**
- 600-699: Master of Science level classes

**College of Pharmacy and Health Sciences**
- 500-699: Master of Medical Science

**School of Medicine**
- 600-699: Graduate courses designed for graduate students only
  
  Courses are generally 3 semester credit hours each.

**McAfee School of Theology**
- 500-999: Master of Divinity
- Doctor of Divinity

**Academic Standards**

To maintain good standing in progress toward a degree, a graduate student must achieve a cumulative grade point average of at least 3.0 (B) on all courses taken for degree purposes. No credit is awarded for any course in which a grade below C is earned. No more than two grades of C or C+, in any combination, may be applied toward a graduate degree.
Application for Degree

A student who expects to qualify for a degree must apply for the degree in the Office of Enrollment Services by the date specified in the University Calendar.

Thesis and Dissertation Requirements

Some master's degree programs and the Doctor of Divinity program require, or provide an option, that each degree candidate write a thesis as part of the degree program. A dissertation is required of all candidates for the Doctor of Philosophy degree. Students who are writing a thesis or dissertation should obtain, from their graduate directors, a copy of the regulations for preparing and submitting a thesis or dissertation. These regulations should be followed carefully in preparing the manuscript. After approval by the appropriate committee within the school, a thesis or dissertation should be submitted to the Provost of the University, accompanied by a receipt indicating payment of all applicable graduation and thesis/dissertation fees.

Behavioral Integrity

The University is a community of scholars in which the ideals of freedom of inquiry, freedom of thought, freedom of expression, and freedom of the individual are sustained. However, the exercise and preservation of these freedoms require a respect for the rights of all in the community. Disruption of the educational process, academic dishonesty, destruction of property, and interference with the orderly process of the University or with the rights of members of the University will not be tolerated. Violations of these rights will be addressed through procedures established by the dean of each graduate program or, in the case of academic dishonesty, by the procedures of the Graduate Honor System.

Graduate Honor System

Academic integrity is maintained through an honor system. The Graduate Honor System is governed by policies established by the University Graduate Council. It draws upon the traditions of integrity and academic freedom - a freedom within the academic community which is based on a trust between students and faculty. The Honor System imposes upon each student the responsibility for his or her own honest behavior and assumes that each student will report any violations of the Honor Code.

The Graduate Honor System is administered by an honor committee composed of five members of the graduate faculty who are responsible for decisions regarding alleged violations. The committee's decisions are binding on the student involved but may be appealed to the chief academic officer of the University.
Eugene W. Stetson School of Business and Economics

Graduate Programs

The Eugene W. Stetson School of Business and Economics (SSBE) offers the MBA degree through the Master of Business Administration (MBA), Executive MBA (EMBA) and Professional Master of Business Administration (PMBA) programs.

The Master of Business Administration degree is offered on the Macon Campus. The degree is offered on the Cecil B. Day Campus in Atlanta through the MBA and EMBA programs, and in Henry County and Savannah through the PMBA program. In Atlanta, joint degree tracks are offered in the Doctor of Pharmacy and the MBA, and in the Master of Divinity and the MBA. In Macon, a joint MBA - J.D. degree is offered in conjunction with the Walter F. George School of Law.

For information on the MBA Program in Macon, please write or call Stetson School of Business and Economics, Mercer University, 1400 Coleman Avenue, Macon, Georgia 31207-0001 (478) 301-2835. For the graduate programs on the Atlanta campus, please write or call the Stetson School of Business and Economics, Mercer University, Cecil B. Day Campus, 3001 Mercer University Drive, Atlanta, Georgia 30341 (678) 547-6417.

These graduate programs are pragmatic in focus with extensive use of applied experience in instruction. This approach encompasses a mixture of lectures, case analysis, project work, and seminars. Each method is used to accomplish the goals of a specific course and to assure that students acquire the ability to apply business theory in a dynamic, competitive environment. Emphasis is given across the curriculum to ethical and socially responsible patterns of business activity and to the integration of specific functional areas into a coherent scheme for decision making and behavior.

Graduate Program Policies and Procedures

1. Eligibility for Admission:
   Applicants seeking graduate admission must have a bachelor's degree with an acceptable level of scholarship from a regionally accredited institution of higher learning. The degree may be in any discipline. Graduates of foreign schools of higher learning must be able to document that their degree is the equivalent of a bachelor's degree awarded by an accredited United States college or university. Foreign educational credentials must be evaluated by an independent evaluation service at the applicant's expense prior to admission.

2. Application:
   To be considered for admission an applicant must submit a completed application form accompanied by a $50 non-refundable fee, ($100 for international applicants.) Applications may be obtained from the Stetson School of Business and Economics.

3. Transcripts:
   All applicants must submit two official transcripts from each collegiate institution previously attended to the Stetson School of Business and Economics, MBA Office, 1400 Coleman Avenue, Macon, Georgia 31207-0001 or the Office of Admissions, Stetson School of Business and Economics, Cecil B. Day Campus, 3001 Mercer University Drive, Atlanta, Georgia 30341, depending on the campus the applicant wishes to attend. International students must present a course-by-course transcript evaluation. A list of acceptable evaluators is available from the MBA Office.
4. Admission Standards:

   A. General Standards for Admissions
   
   All applicants must take the Graduate Management Admission Test (GMAT). The GMAT is administered by the Educational Testing Service, Princeton, New Jersey. A GMAT information Catalog can be obtained by contacting the Stetson School of Business and Economics, or at www.gmat.org. Score reports should be forwarded to Mercer/Macon, Institutional Code #5409, and/or Mercer/Atlanta, Institutional Code #5025. Only GMAT scores within the five years prior to admission will be accepted.

   B. Guaranteed Admission to the MBA Program
   
   Guaranteed Admission to the MBA program may be granted to students completing an undergraduate degree at Mercer University. To be considered for guaranteed admission, a student must meet one of the conditions outlined below:

   1. Students who will complete the requirements for a BBA degree from Mercer within the current academic year, have completed at least 30 semester hours in SSBE and 32 hours at Mercer, and who are in the top 10% of BBA graduates for the academic year, as determined by the SSBE faculty, may have the GMAT waived for the MBA program.

   2. Students who will complete the requirements for a BBA degree from Mercer within the current academic year, have completed at least 30 semester hours in SSBE and 32 hours at Mercer, and who score at the 90th percentile or higher on the ETS major field test administered through SSBE, and as approved by the SSBE faculty, may have the GMAT waived for the MBA program.

   3. Students who will complete the requirements for an undergraduate degree from Mercer within the current academic year, have met the residency requirements of the degree program and completed at least 32 hours at Mercer, and who are in the top 10% of that School's or College's graduates for the academic year, as approved by the SSBE faculty, may have the GMAT waived for the MBA program.

5. International Applicants:

   Qualified applicants whose native language is not English will be eligible for admission into the program. Major emphasis is placed on proficiency in the use of English. The proficiency level desired is a minimum score of 550 (213 on the computerized version) on the TOEFL examination. The GMAT must be taken prior to consideration for admission.

   Accepted international applicants whose primary language is not English will be tested by the English Language Institute of Mercer University. Those whose test results indicate a lack of proficiency in English will be required to enroll in and satisfactorily complete English courses deemed appropriate by the International Student Advisor and the Stetson School of Business and Economics. Any English courses needed as a result of this testing become a formal part of the international student's degree requirements and must be given first priority in registering for courses.

   Each applicant must present “official” credentials attesting to academic achievement as to level and performance. “Official” documents will vary from country to country, but should be original documents with authoritative signatures, seals, stamps, etc.
Whenever possible, these should be sent by the institution responsible for issuing such documents. In cases where it is impossible for an applicant to have these credentials sent from such institutions, the applicant should forward a duly “notarized” or “attested to” copy. The notarization should be done by a proper government official or proper representative of the American Embassy in the country.

International applicants who completed all or part of their education abroad are required to have their foreign credentials evaluated by an independent evaluation service. Information and forms are available on request from the MBA Office.

When the documents are in a language other than English, they must be accompanied by translations. These translations must be the original form and contain acceptable notarization as described above for a copy of the original documents. Translations should be made by the American Embassy, the home country Embassy, or an appropriate government official. As a general rule, documents translated by the Office of the American Friends of the Middle East (AFME) and the Institute of International Education (IIE) will be acceptable. Because additional processing time is required, international students should submit the application and all supporting documents at least 60 days prior to the start of the desired semester of entrance.

Each international applicant must present financial documentation showing ability to finance the student’s education and living expenses for one year. Financial documents must be dated no more than one year to date of enrollment. Graduate assistantships, grants, and financial aid are not available to international students.

6. **Transient Status:**
   Students enrolled at another institution who wish to obtain graduate credit for a course taken at Mercer University must provide written authorization from the other institution. The authorization must be accompanied by a completed application for admission and the appropriate application fee. Transcripts and admission test scores are waived with letter of good standing.

7. **Transfer Credit:**
   Students may receive credit for graduate courses taken at another institution, either as transfer or transient credit. The number of hours accepted as transfer and transient credit may not exceed six (6) semester hours. Credit for graduate transfer or transient courses completed at another institution may be awarded under the following conditions: (1) the courses were taken at a graduate degree granting institution accredited by a regional accrediting body; (2) the courses were graduate degree courses; (3) the courses were taken in residence and not by correspondence; (4) grades of at least “B” were received in the courses; (5) the courses were completed within the five years prior to enrolling in graduate studies at Mercer; (6) other restrictions as set by the graduate faculty. Courses taken for another degree previously earned may not be applied toward the MBA or EMBA.

   A written request for consideration of transfer credit should be submitted to the Program Director by the student within six months of initial enrollment. The request must indicate the specific course(s) for which transfer credit is sought and must include a copy of the other institution's Catalog, a course outline and an official transcript. Exceptions to this policy may be appealed to the Dean of the Stetson School of Business and Economics.

8. **Transient Credit:**
   Students who wish to earn transient credit from another college while enrolled in the MBA program must have prior approval from the appropriate Program Director for
such credit to be accepted as a part of the degree program. Transient credit may not be used to meet the residency requirement necessary for graduation, except under unusual circumstances, which must be approved by the Director of Graduate Studies. Transient courses must be taken at schools that are accredited by The Association to Advance Collegiate Schools of Business (AACSB International). Course equivalencies must be approved in advance.

9. Readmission:
A student who withdraws from the school while on academic warning or probation, or who has not completed a course in two calendar years and who wishes to reenter, must request readmission in writing to the Program Director. Requirements for continued enrollment and limits to the number of courses a student may take may be established. Furthermore, if it has been two calendar years or more since a course has been completed, the student must reenter under the catalog governing the academic year in which he/she reenters. Appeals of decisions regarding readmission must be made in writing to the Dean of the Stetson School of Business and Economics. Any student who is on academic exclusion may not be readmitted.

10. Academic Regulations:
Graduate students should become familiar with Catalog information, the university calendar, and the specific regulations of their degree program.

11. Exceptions and Appeals:
Exceptions to policy or appeals of policy decisions and/or grades must be made in writing to the dean’s office of the Stetson School of Business and Economics. These will be reviewed by the Student Life Committee, which will make a recommendation to the appropriate dean. Appeals for reconsideration of a recommendation or decision by the Student Life Committee must be presented in writing to the dean.

12. Degree Requirements:
To qualify for the MBA degree, the student must successfully complete at least 36 semester hours of course work numbered 600 and above as specified under the Program of Study section. On all courses taken in residence and considered for graduation, the student must have a cumulative GPA of at least 3.0. To graduate, students must obtain a minimum grade point average of 3.0 on all graduate business courses taken at Mercer University. In addition to meeting the 3.0 requirement for graduation, students must have no more than two (2) grades of C and/or C+ in the entire graduate work. Grades below a C do not count toward Master's degrees. No more than two (2) courses with a grade of less than B may be repeated for credit in the graduate programs. Students earning five letter grades of C or C+ in required core and foundation courses will be permanently excluded from the MBA program. Macon MBA students must also complete the graduate assessment examination, the Master of Business Administration Test.

The time limit for completion of all course work for graduate degrees is seven (7) years.

13. Residency Requirements:
To qualify for the MBA degree, the student must complete at least 30 semester hours of course work in residence.

14. Participation in Commencement Ceremonies:
Students who have met all degree requirements may participate in the Commencement ceremony. Other graduate students may participate under these stipulations: (1) if they are within six (6) hours or less of completing all degree
requirements, including the minimum number of semester hours required, and (2) if they meet the minimum graduation requirements for grade point averages in cumulative GPA.

15. **MBA Classes for Students Enrolled in Graduate and Professional Programs Outside of the Stetson School of Business and Economics:**

Students enrolled in other graduate and professional programs of Mercer University may take up to three classes offered in the MBA program. A student must be in good standing in their program, have a four-year undergraduate degree, and must meet all prerequisites for the courses in which they wish to enroll. All registrations must be approved by the Director of Graduate Studies. An acceptable score on the GMAT may be required at the discretion of the Director.

**Graduate Academic Deficiency**

Unsatisfactory Academic Progress: The cumulative grade point average of 3.0 is one of the requirements for graduation from the graduate program. The cumulative grade point average is an indication of a student’s academic performance. Any student whose semester and/or cumulative grade point average is below 3.0 is considered to be making unsatisfactory academic progress, and the student’s progress will be monitored. The statuses described below designate a single period of one or more consecutive semesters in which a student is making unsatisfactory academic progress. This period begins the semester following the semester in which the semester or cumulative grade point average is below 3.0 and ends the semester in which the cumulative and semester grade point average are at least 3.0.

**Academic Warning**

The first semester that a student’s semester and/or cumulative grade point average is below 3.0.

**Academic Probation**

The second and subsequent consecutive semesters in which a student is enrolled and the semester or cumulative grade point average is below 3.0. To improve the academic standing of a student who is making unsatisfactory academic progress, the Director of Graduate Studies may specify conditions with which a student must comply to be able to register, such as the courses to be taken, the course load, the attainment of a specific semester grade point average, and/or counseling.

**Academic Suspension**

After the second and subsequent semesters on Academic Probation, a student may be placed on Academic Suspension; that is, the student may not be permitted to register for classes for one or more semesters. A student who is suspended may request in writing that the Director of his or her program review the decision.

**Academic Exclusion**

In the most serious cases of unsatisfactory academic progress a student may be permanently excluded from the program. Students earning five letter grades of C or C+ in required core and foundation courses will be permanently excluded from the MBA program.

**Readmission**

The student who wishes to be considered for readmission following suspension must make application in writing to the Director of Graduate Studies. The application must be
made at least 45 days prior to the close of registration for the semester in which the student wishes to enroll. The Director may consult with faculty before making a decision. If the student is allowed to reenter, the Director may establish conditions for the student's readmission, as well as course requirements. A negative decision by the Director may be appealed in writing to the Dean, or to the Dean's designated representative. The decision of the Dean, or the Dean's representative, is final.

Grades of C or Below

Graduate students, in addition to meeting the 3.0 requirement for graduation, must not have more than 2 grades of C and/or C+ in the entire graduate work. Grades below a C do not count toward Master's degrees. Students not meeting the minimum standards may be placed on academic probation. Students earning five letter grades of C or C+ in required core and foundation courses will be permanently excluded from the MBA program.

MASTER OF BUSINESS ADMINISTRATION

The Master of Business Administration (MBA) degree is a professional degree for individuals interested in the management of human, material, and financial resources in business, government, and non-profit organizations. The program is tailored to meet the needs of individuals already employed as managers, as well as persons preparing for advancement into middle management or administrative levels. The MBA program has the following objectives:

- Examine the relationship between business and society in order to heighten each student's awareness of social dilemmas and value conflicts which affect an organization's performance;
- Develop a greater understanding of human behavior in organizations and develop the attitudes and skills necessary to achieve effective working relationships;
- Develop analytical techniques and multi-disciplinary approaches useful in making and implementing decisions;
- Develop a strategic vision necessary to cope with complex managerial problems in a global environment.

Program of Study

Foundation Areas

1. MAT 126: Elementary Statistical Methods (waived by an approved undergraduate course with a grade of C or better) Students are also required to take, and score at a satisfactory level, the Statistical Skills Test prior to registering for BAM 622, Applied Data Analysis. A tutorial is available in the MBA office.
2. ECN 150: Principles of Microeconomics (waived by an approved undergraduate course with a grade of C or better)
3. FIN 362: Principles of Finance (waived by an approved undergraduate course with a grade of C or better) Students needing FIN 362 as part of their program of study and not having a course in financial accounting are required to obtain permission of the instructor prior to registering.
4. An additional 18 undergraduate semester credit hours in business with a grade of C or better. This requirement may be met by completing three semester graduate elective hours for every six semester undergraduate hours required.
5. Working knowledge of spreadsheet, word-processing, and presentation software.
Core Courses

BAM 602. Financial Reporting and Analysis*
BAM 604. Operations Management or BAM 624. Advanced Applied Data Analysis
BAM 606. Applied Microeconomic Analysis*
BAM 608. Global Macroeconomic Environment (or BA 613. Studies Abroad)
BAM 610. Managers and the Legal and Government Environment of Business
BAM 612. Corporate Financial Management
BAM 614. Accounting for Control
BAM 616. Management and Leadership*
BAM 618. Advanced Seminar in Business Ethics
BAM 620. Seminar in Strategic Marketing*
BAM 622. Applied Data Analysis
BAM 699. MBA Capstone

* May be replaced with a free elective with an undergraduate major in the area.

JOINT MASTER OF BUSINESS/LAW DEGREE PROGRAM

The Eugene W. Stetson School of Business and Economics and the Walter F. George School of Law of Mercer University offer a joint program of study that permits both the MBA and J.D. degrees to be earned in three academic years. The MBA degree is earned through the Stetson School of Business and Economics, normally by taking courses on the Macon campus. Law coursework must be done at Mercer's Walter F. George School of Law.

On the law school application, an applicant to the program must indicate his/her intent to also apply to the Stetson School of Business and Economics. Both schools will share the information in the application, including required standardized test scores. The applicant must be admitted separately by each school. No person will be admitted to the law school merely because he or she has been admitted to the regular MBA program, and no person will be admitted to the MBA program merely because he or she has been admitted to the law school.

Shown below is a sample of a course of study that would permit a student to complete the joint J.D./MBA degree course requirements in three years. This is only a sample and is not intended as the only path to completion of the joint degree program. Instead, the deans of the law school and the Stetson School of Business and Economics (or their respective designates) are expected to work with students to develop and approve alternative programs of study and courses for those students who choose not to follow this sample. Any alternative course of study must adhere to law school and Stetson School of Business and Economics requirements, as modified by the requirements for the joint degree program. In the sample, the MBA core program is reduced to 30 semester hours.

First Year, Fall Semester

Law 100: Intro to Law
Law 103: Intro to Legal Research
Law 107: Contracts
Law 110: Criminal Law
Law 111: Legal Analysis
Law 116: Property Law
Law 119: Torts

Total Law Credits = 17 / Total Business Credits = 0
First Year, Spring Semester
Law 103: Intro to Legal Research
Law 149: The Legal Profession
Law 150: American Constitutional System
Law 151: Jurisdiction and Judgments
Law 152: Legal Writing I
Law 153: Sales
Total Law Credits = 17 / Total Business Credits = 0

First Year, Summer Semester
Clerk or
ECN 150; MAT 126; and/or FIN 362 (prerequisites if not taken as an undergraduate)
Total Law Credits = 0 / Total Business Credits = 0

Second Year, Fall Semester
Law 154: Statutory Law and Analysis
Law 200: Intro to Counseling
Law 202: Federal Income Tax
Law 203: Civil Lawsuits
Law 207: Legal Writing II
BAM 602: Financial Reporting and Analysis
BAM 606: Applied Microeconomic Analysis
Total Law Credits = 11 / Total Business Credits = 6

Second Year, Spring Semester
Law 206: Evidence
Perspectives Block
Administrative Block
Two hours of law electives
BAM 614: Accounting for Control
BAM 620: Seminar in Strategic Marketing
Total Law Credits = 11 / Total Business Credits = 6

Second Year, Summer Semester
Clerk and
BAM 610: Managers and the Legal Environment of Business (waived for Law 107)
BAM 612: Corporate Financial Management (Macon or Atlanta)
Total Law Credits = 0 / Total Business Credits = 3

Third Year, Fall Semester
Law 300: Intro to Dispute Resolution
Law 302: Law of Lawyering
Seminar
Five hours of law electives
BAM 616: Management and Leadership
BAM 604: Operations Management
Total Law Credits = 11 / Total Business Credits = 6

Third Year, Spring Semester
Law 542: Remedies
Advanced Skills

386 / MERCER UNIVERSITY
Seven hours of electives
BAM 618: Advanced Seminar in Business Ethics (waived for Law 149)
BAM 622: Applied Data Analysis
Total Law Credits = 12 / Total Business Credits = 3

Third Year, Summer Semester
BAM 608: Global Macroeconomic Environment (or approved substitute in Atlanta)
BAM 699: MBA Capstone
Total Law Credits = 0 / Total Business Credits = 6

MASTER OF BUSINESS ADMINISTRATION CURRICULUM
BUSINESS ADMINISTRATION (BAM)

Core Courses

BAM 602. Financial Reporting and Analysis (3 hours)
This course is an in-depth look at financial reporting, regulation, ratio and trend analysis. Research skills using on-line data bases will be explored.

BAM 604. Operations Management (3 hours)
Prerequisite: MAT 126 or an approved undergraduate equivalent.
This course focuses on the strategic and tactical issues in managing the creation and distribution of goods and services. Concepts and techniques for process and project management are covered. Specific topics include, but are not limited to, operations strategy, quality management, time-based competition, supply chain management and project management.

BAM 606. Applied Microeconomic Analysis (3 hours)
Prerequisite: ECN 150 or an approved undergraduate equivalent.
A survey of economic tools and analysis available to the manager for business decision making. Includes such topics as: pricing, forecasting, demand analysis, and macroeconomic policy as it affects the business environment.

BAM 608. Global Macroeconomic Environment (3 hours)
Prerequisite: ECN 150 or an approved undergraduate equivalent.
This course is a study of aggregate economic activity in an open economy format. Unemployment, inflation and growth are analyzed within a global environment. Policy issues, both monetary and fiscal in nature, are discussed with consideration given to the impact of international linkages. Emphasis is placed upon analytical methods which enable managers to understand and predict the effect of overall economic fluctuations on their firms.

BAM 610. Managers and the Legal and Governmental Environment of Business (3 hours)
This course introduces students to the many legal and regulatory challenges that managers confront during the life of a business. It focuses on the relationship between law, governments, and business, considers how effective use of legal strategies can both advance a business and avoid regulatory costs and how efficient use of counsel can be achieved.

BAM 612. Corporate Financial Management (3 hours)
Prerequisites: FIN 362 or an approved undergraduate equivalent, and BAM 602.
The course focuses on the conceptual and practical problems associated with the financial management of non-financial firms. Topics include valuation of the firm, capital budgeting risk, cost of capital, capital structure, dividend policy, and investment strategies.
BAM 614. Accounting for Control (3 hours)
Prerequisite: BAM 602.
A course designed for middle managers which reviews the effective use of accounting information in business decision-making. A case approach.

BAM 616. Management and Leadership (3 hours)
This course describes and analyzes the growth, development, and application of behavioral science to industrial society. Emphasis is placed upon an understanding of the social, psychological, and cultural aspects of the work situation.

BAM 618. Advanced Seminar in Business Ethics (3 hours)
Prerequisite: BAM 616 or permission of instructor.
This course offers a multidisciplinary approach to the issues of ethical business practice. It examines the concept of leadership as a specialized role and as a social influence process in organizations and in society at-large.

BAM 620. Seminar in Strategic Marketing (3 hours)
An analytical examination of the decision-maker's process in producing a marketing strategy consistent with the underlying factors present in various situations. Case analysis is emphasized to help develop strategic marketing skills.

BAM 622. Applied Data Analysis (3 hours)
Prerequisites: successful completion of the Statistics Skills Test prior to registration, MAT 126 or an approved undergraduate equivalent.
A review of major theories, tools, and techniques useful in making decisions and solving problems. Special emphasis on the problems more commonly encountered by middle and lower levels of management.

BAM 624. Advanced Applied Data Analysis (3 hours)
Prerequisite: BAM 622.
This course provides students the opportunity to directly apply the content of BAM 622, Applied Data Analysis to a real world setting. The entire course is based on a self-defined problem. After identifying and organizing the available data and after discussing appropriate techniques, students will develop a detailed statistical analysis that aids in the understanding of a problem. Practical recommendations and potential solutions will be a critical component of the analysis.

BAM 699. MBA Capstone (3 hours)
Prerequisite: 24 semester graduate credits.
This course provides students with the opportunity to correlate, integrate, and apply the concepts that are developed throughout the program. An emphasis of the course is strategic management. A computer simulation is used extensively.

MBA Electives (BAM)

BAM 625. Special Topics (3 hours)
Prerequisite: permission of the director of graduate programs.
Special Topics are courses designed to provide instruction in areas and subjects that are not offered in the program curriculum as shown in the catalog. Special Topics is a mechanism that facilitates the development of new courses, and encourages curriculum experimentation and curriculum development. Maximum degree credit for Special Topics courses for any student is 6 semester hours.

BAM 626. Independent Study (3 hours)
Prerequisite: permission of the director of graduate programs.
Independent Study is designed to allow an individual student to study in an area or subject
that is not offered in the program curriculum as shown in the catalog. The student's proposal for Independent Study must be planned with and approved by an instructor, and must be approved by the Dean. Maximum degree credit of Independent Study for any student is 3 semester hours.

**MBA Electives (BA)**

**Accounting/Taxation**

**BA 630. Individual Income Tax** (3 hours)
Prerequisite: BAA 603 or BAM 614.
An introduction to the basic skills and concepts needed for individual income taxation. A foundation of tax knowledge which can be expanded into special areas. (Atl)

**BA 635. Corporate, Partnership, and Estate Taxation** (3 hours)
Prerequisites: BAA 603 and BA 630, or BAM 614 and BA 630.
This course examines the income taxation of corporations and partnerships including operating, formation, and distributions. Gift and estate taxation issues are also addressed.

**BA 637. Governmental and Not-For-Profit Accounting** (3 hours)
Prerequisite: consent of instructor.
A study of the principles of fund accounting for and financial reporting by not-for-profit and government entities. This course also addresses CAFR analysis and current topics in the content area.

**BA 655. Advanced Auditing** (3 hours)
Prerequisite: ACC 431.
A continuation of introductory auditing with emphasis on development of audit procedures, the internal control structure, and assessed audit risk. Major audit failures are analyzed to assess causes and appropriate remedies. Ethical standards for the audit profession are also examined.

**BA 657. Advanced Accounting** (3 hours)
Prerequisites: ACC 371, 372, and 373, or consent of the instructor.
A study of the theory and principles of accounting for business combinations, the preparation of consolidated financial statements, branch accounting, accounting for partnerships, accounting for international operations, and accounting for governmental and nonprofit organizations. A case approach.

**Economics**

**BA 678. International Economics** (3 hours)
Prerequisite: BAA 601 or BAM 606.
An introduction to foreign trade theory and commercial policies. Topics may include the theory of international trade, commercial policies, balance of payments and domestic stability, offer curves and the terms of trade, and international trade strategy.

**Finance**

**BA 670. Seminar in Financial Management and Policy** (3 hours)
Prerequisite: BAA 609 or BAM 612.
Advanced topics in Financial Management will be applied to real world case studies. The course will emphasize decision making and should be the last course taken in the finance sequence.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>BA 671</td>
<td>Corporate Restructuring via Mergers and Acquisitions</td>
<td>(3 hours)</td>
<td>BAA 609 or BAM 612</td>
<td>This course will offer an intermediate-to-advanced treatment to the topic of corporate control, a topic that has become very popular in corporate America and which is gaining much importance. Some of the broad topics to be covered in this course include: theory of the firm and corporate activity; economic rationale for the existence of the firm and for the major types of mergers; theories of mergers and tender offers; empirical tests of some of the more important theories; sell-offs and divestitures; methods of payment and leverage; takeover defenses; and legal framework of mergers. (Mac)</td>
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<tr>
<td>BA 672</td>
<td>Financial Institutions</td>
<td>(3 hours)</td>
<td>BAA 609 or BAM 612</td>
<td>Analysis of money and credit system of the United States banking system and the impact of monetary and fiscal policies upon business decisions and economic activity.</td>
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<tr>
<td>BA 673</td>
<td>Capital Budgeting</td>
<td>(3 hours)</td>
<td>BAA 609 or BAM 612</td>
<td>An analytical course that introduces advanced mathematical and statistical concepts into the analysis of the financial decision making process.</td>
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<tr>
<td>BA 674</td>
<td>Investment Analysis &amp; Portfolio Management</td>
<td>(3 hours)</td>
<td>BAA 609 or BAM 612</td>
<td>Rigorous and empirical study of the elements of investment; investment background and modern investment theory; analysis and valuation of equity securities and bonds; asset pricing and portfolio theory and evaluation of portfolio performance.</td>
</tr>
<tr>
<td>BA 675</td>
<td>International Finance</td>
<td>(3 hours)</td>
<td>BAA 609 or BAM 612</td>
<td>To familiarize the student and managers with a changing international scene. The use of foreign exchange, interest rate risk, arbitrage, spot and forward rates and the applicability of hedging will be introduced. The course will emphasize applications for MBA students majoring in finance and other students interested in the topic. (Atl)</td>
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<tr>
<td>BA 694</td>
<td>Financial Derivatives: Options and Futures</td>
<td>(3 hours)</td>
<td>BAA 609 or BAM 612</td>
<td>The course explores the latest derivative markets introduced to the U.S. and the rest of the world. These markets are the Futures, Options, Futures on Options and other financial engineering instruments. The objective is to use these instruments either as an individual investor or for hedging purposes by corporate managers. (Atl)</td>
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<tr>
<td>General Business</td>
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<tr>
<td>BA 664</td>
<td>Electronic Commerce</td>
<td>(3 hours)</td>
<td></td>
<td>Technology is a driving force in the trend of globalization. This course examines how organizations are relying on the Internet for marketing and management purposes. Emphasis will be on implementing electronic commerce as a business strategy, leveraging information technologies for business processes, and reviewing state of the art applications used in product, service, and information sectors. Legal and ethical issues of electronic commerce will also be addressed.</td>
</tr>
</tbody>
</table>
International Business

BA 613. Studies Abroad (1-6 hours)
Travel to a foreign country in order to interview and consult with business managers, labor leaders, academicians and government officials. Lectures, discussions, facilities tours. Analysis of the role and impact of cultural, economic, social, political and legal influences on management philosophy and practice. Theories and practices of organizing, motivating, communicating and negotiation are examined in different national settings. Research report and oral presentations required. Direct costs such as airfare, meals and lodging are added to normal tuition charges. (Atl)

BA 675. International Finance (3 hours)
Prerequisite: BAA 609 or BAM 612.
To familiarize the student and managers with a changing international scene. The use of foreign exchange, interest rate risk, arbitrage, spot and forward rates and the applicability of hedging will be introduced. The course will emphasize applications for MBA students majoring in finance and other students interested in the topic. (Atl)

BA 681. International Marketing (3 hours)
Prerequisite: BAA 605 or BAM 620.
An analysis of the social, cultural, political and economic environment for international marketing, problems in the marketing organizational structure of the firm and control of the international marketing operations in the multinational firm; also a study of alternative marketing strategies for cross national marketing and how it could develop into viable international exchange markets. (Atl)

BA 696. International Management (3 hours)
Prerequisite: BAA 692 or BAM 616.
Managers increasingly work either with an ethnically diverse domestic work force or at cross-national or cross-regional interfaces. To improve performance in these multicultural settings, this seminar examines ways in which cultures vary and how these variations affect work values, expectations and practices. The seminar then explores ways of effectively managing cultural diversity.

Internship

BA 656. Business Administration Intern (3 hours)
Prerequisites: completion of at least 15 hours in the MBA program, minimum 3.0 cumulative GPA, and permission of the director of graduate programs.
The intern program is designed to provide the student on-site (as a minimum) 60 work hours of experience in business administration. The intern program must be substantially different from any business experience that the student has had. The intern program cannot be at a location where the student is employed, or where the student has been employed. The student will be assigned an academic internship advisor, who will be responsible for establishing the internship objectives, and coordinating these with the internship sponsor at the employer. Course objectives will vary based on the nature of the internship. It is expected that there will be reading requirements and written assignments to enhance the student's learning from the experience. The student's advisor will oversee, with the help of the sponsor, the intern's study and review the student's work and assign the grade.
Management

BA 642. Practitioner's Seminar (1.5 hours)
Prerequisite: permission of the director of graduate programs.
This course is designed around a topic of interest which is presented by a practitioner along with a full-time faculty member. Each seminar has a principal objective of linking theory and practice. (Each seminar carries 1.5 hours of credit. Graduate students may take up to 6 semester elective hours in Practitioner's Seminar toward their program of study. These seminars may not substitute for core courses.)

BA 676. Applied Decision Sciences (3 hours)
Prerequisite: BAA 611 or BAM 622.
Management simulation through the use of a computer game. Students are divided into teams for decision making purposes and compete with other teams. The course emphasizes quantitative models such as Multiple Regression and Linear Programming. Extensive use of computer software relevant to the models and techniques introduced; however, no computer programming knowledge is assumed. (Atl)

BA 684. Entrepreneurship, Intrapreneurship and Innovation (3 hours)
Prerequisites: BA 692, BAA 605, and BAA 609, or permission of instructor, or BAM 6616, BAM 620, and BAM 612, or permission of instructor.
This course covers both the basics of what entrepreneurship and intrapreneurship are today, including a focus on e-commerce. The nature of the entrepreneur, firm successes and failures, the overall world climate for entrepreneurship, and marketing, financial analysis and overall business planning are covered. The student will develop a business plan as part of the class experience. (Atl)

BA 685. Human Resource Management (3 hours)
Prerequisite: BA 692 or BAM 616.
This course examines the fundamentals of human resource management. It emphasizes the individual-organization interface and the administration of the personnel function to achieve organization objectives.

BA 696. International Management (3 hours)
Prerequisite: BAA 692 or BAM 616.
Managers increasingly work either with an ethnically diverse domestic work force or at cross-national or cross-regional interfaces. To improve performance in these multicultural settings, this seminar examines ways in which cultures vary and how these variations affect work values, expectations and practices. The seminar then explores ways of effectively managing cultural diversity.

Management Information Systems

BA 654. Foundations in Management Information Systems (3 hours)
Prerequisite: BAA 611 or BAM 604.
Information systems and technologies (IS/T) are an integral part of most organizations. Managers need at least a basic understanding of IS/T in order to express requirements, make necessary choices, oversee implementations and assess results. Combining academic theory and business experience, this course is designed to provide an understanding of the concepts and fundamentals of IS/T, the challenges of designing and implementing them and their potential impact on the organization. Emphasis will be on aligning information strategies with business strategies and leveraging information technologies for business processes.
BA 660. Information Resource Management (3 hours)
Prerequisite: BAA 611 or BAM 604.
Information Resource Management (IRM) is designed to provide an overview of a number of the people and technical issues related to Information Systems (IS) planning, development, organization, evaluation and control. The impacts of IS on users at various levels of the organization are examined. Applications of emerging technologies will be reviewed. The goal is to integrate the issues and concepts discussed so that common themes and relationships become apparent. At all times the focus should be on practical applications of the material being discussed. (Atl)

Marketing

BA 662. Direct and Electronic Marketing (3 hours)
Focuses on the strategy and decision-making aspects of direct marketing and electronic marketing. Emphasis is placed on various choices available for creation and execution of modern, efficient direct promotional campaign. Relevant to both business-to-consumer and business-to-business settings.

BA 681. International Marketing (3 hours)
Prerequisite: BAA 605 or BAM 620.
An analysis of the social, cultural, political and economic environment for international marketing, problems in the marketing organizational structure of the firm and control of the international marketing operations in the multinational firm; also a study of alternative marketing strategies for cross national marketing and how it could develop into viable international exchange markets. (Atl)

BA 682. Buyer Behavior (3 hours)
Prerequisite: BAA 605 or BAM 620.
This course focuses on the study of the behavior of buyers of consumer and industrial goods and services. Special emphasis is placed on increasing the student's sensitivity to, and understanding of, buyers and their behavior and providing the student with experience in applying this knowledge to effective marketing management decisions. (Atl)

BA 686. Marketing Promotion (3 hours)
Prerequisite: BAA 605 or BAM 620.
This course focuses on decision making in the management of the elements of the firm's promotional mix such as advertising, sales promotion, publicity, and packaging and branding. Special emphasis is placed on the use of promotional tools as they are used in promotional strategy formulation. (Atl)
The School of Engineering

Michael S. Leonard, Ph.D., P.E., Interim Dean/Professor

Graduate Faculty:


Susan Codone, Donald Ekong, Sinjae Hyun, Hodge Jenkins, Scott Schultz, and Ha Vo, Assistant Professors

Master of Science in Engineering

Master of Science

The faculty of the Mercer University School of Engineering grants advanced degrees in engineering, technical management, and in software systems through a part-time, evening program.

Students whose interests and aptitudes lead them beyond the goals of the traditional undergraduate curriculum may broaden their knowledge of a given field or pursue independent inquiry through graduate study.

The School of Engineering has also designed the master of science in engineering program to enable the Mercer University undergraduate student to gain simultaneously a bachelor of science in engineering and a masters of science in engineering degree in five years. This is an integrated program in which the student pursues a bachelor of science in engineering. During the junior year students may apply to complete both the bachelor of science in engineering degree and the master of science in engineering program during the fourth and fifth year of study. It is designed to prepare the Mercer engineering graduate to play an engineering leadership role and to achieve a high degree of success in his or her field.

The Master of Science in Engineering degree is offered in the following disciplines:
- Biomedical Engineering
- Computer Engineering
- Electrical Engineering
- Engineering Management
- Mechanical Engineering
- Software Engineering

The Master of Science degree is offered in the following disciplines:
- Software Systems
- Technical Communication Management
- Technical Management

Policies and Regulations

The Graduate Committee of the School of Engineering is responsible for establishing academic policy for the graduate program with the approval of the University Graduate Council. This committee reserves the right to change the requirements for degrees as may be appropriate. Students enrolled at the time such changes appear in the catalog have the option of completing the requirements in effect during the term in which they enrolled, provided they complete the course of study within three years following the change, or of com-
pleting their degrees according to the new requirements. This catalog records the school-wide policies and regulations that govern the graduate program. Departments within the school may establish additional requirements for their programs, but these may not contradict the policies and regulations of the Graduate Committee of the School of Engineering.

**Admission**

Certain basic requirements must be met for admission to all of the graduate programs offered by the Mercer University School of Engineering. These requirements are intended to ensure that profitable graduate study will result from admission. Students may be admitted to the graduate program with “Full,” “Conditional,” “nondegree” or “Transient” graduate standing.

Admission of undergraduate students to the integrated Master of Science in Engineering program is only open to Mercer students. The school limits enrollment to students whose grade point average at the end of their junior year is equal or greater than 3.0 and who have the appropriate undergraduate background for the graduate program they select.

**English Proficiency**

All international students whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL), or a Certificate of Proficiency from an ELS Language Center. The minimum acceptable TOEFL score is 550. English proficiency at ELS Level 109 is expected.

**Admission Categories**

**Full Admission**

The requirements for admission with “full” graduate standing are as follows:

1. Submit a completed graduation application along with application fee. Have original transcripts submitted directly from the institution to Mercer University School of Engineering.

   **International Students** must have their foreign academic credentials evaluated by Engineering Credentials Evaluation International (ECEI.org) and have the evaluation submitted to the School of Engineering.

2. Hold a bachelor's degree in an appropriate field from an accredited institution; for MSE applicants, the program must be accredited by the Engineering Accreditation Commission of ABET.

3. Have an earned undergraduate GPA of 3.0 overall

4. Meet all additional specific departmental requirements, if any.

**Conditional Admission**

Applicants who fail to satisfy all the conditions for full admission, may be accorded “Conditional” standing upon recommendation of the concerned department chairman. Upon admission, appropriate conditions will be defined, and must be met, to achieve “Full” standing. Once the defined conditions are satisfied, the student must petition the Graduate Committee for advancement to “Full” standing. Students must attain “Full” graduate standing to be graduated with the MSE or MS degree.
Provisional Admission

Applicants to the graduate program may be admitted provisionally until all application materials are received in the Graduate Programs Division. Once materials are received, the student’s file is reviewed for appropriate acceptance status.

Non-degree Status

Students who do not wish to pursue an advanced degree in the School of Engineering, but whose undergraduate record indicates that they are otherwise qualified for admission, may take graduate courses as a non-degree student. Such courses will not normally apply toward a Mercer degree.

Transient Admission

Students in good standing at other universities may enroll in the School of Engineering as “Transient” graduate students. Such students must file an application for admission and provide verification of good standing status from their own graduate dean. Work undertaken in this status will not normally apply toward a Mercer degree.

Readmission

Students who interrupt the continuity of their graduate programs by failing to register for two consecutive terms (summer term excepted) must seek readmission by filing a Request for Readmission by August 1 for Fall Semester, December 1 for the Spring Semester, and May 1 for Summer term. Students admitted to the School of Engineering graduate program who do not enter in the term for which they applied, and subsequently wish to be considered for a later term, must reactivate their application for the new semester by notifying the Graduate Programs Division in the School of Engineering at least two weeks before the beginning of that term.

Tuition and Fees - Graduate Programs

Contact the Graduate Programs Office of the School of Engineering for current tuition and fees. Miscellaneous fees and policies governing payment of fees and refunds may be found under the “Financial Information” section of this catalog.

Matriculation Requirements

While students may enroll in the graduate program upon admission with either full or conditional standing, they must attain full graduate status, and be in good standing academically to graduate with the MSE or MS degree.

Continuous Enrollment

Students enrolled in graduate degree programs should make consistent progress toward their degree in order to complete the program according to the requirements under which they enrolled. Unless the student maintains continuous matriculation, the school may require that the student meet the degree requirements in force at the time of his or her last readmission. When engaged in a thesis, the student must officially register for at least one course every term (not including summer term), except that one term may be missed with prior approval of the Graduate Committee. All work submitted for degree credit must be completed within seven consecutive calendar years.
Academic Loads

Most graduate students in the School of Engineering are part-time students. To qualify for full-time status, a graduate student must schedule at least nine hours each term (summer term excepted). For financial aid purposes, graduate loads are: full time, 9 or more credits; three-quarter time, 6-8 credits; half time, 4-5 credits; quarter time 1-3 credits.

Academic Requirements

Graduate students are expected to maintain at least a 3.0 cumulative grade point average (GPA). Students in the integrated bachelor of science in engineering and master of science in engineering programs must maintain at least a 3.0 cumulative grade point average on all coursework which applies toward the master of science in engineering degree. Any student earning a grade lower than a B will receive a warning. A student earning a second grade lower than a B will be placed on academic probation. The student will be informed of requirements for retaining good academic standing. Failure to meet the requirements will result in the student being dismissed from the program. An s/u grade does not affect the GPA. No credit is awarded for any course in which a grade below C is earned. No more than two grades of C or C+ in any combination may be applied toward a graduate degree.

Transfer and Transient Credit

Under certain circumstances, students may receive transfer credit for graduate-level courses taken elsewhere. The student must have his or her previous institution supply an official transcript to the Graduate Programs Division for this evaluation. Upon recommendation of the student's graduate advisor, and approval of the program director, transfer credit may be awarded for courses of acceptable quality which form a logical part of the student's graduate program. Such credit will be limited to six semester hours, and may substitute for no more than two courses. Students enrolled in the Mercer School of Engineering graduate program who wish to attend graduate classes at another institution, and to transfer credit back to their graduate program here, should receive permission to take transient courses prior to enrolling at another institution. Otherwise, courses taken elsewhere may not count toward their Mercer degrees. Authority to take transient course work is granted through the dean's office. The maximum number of transfer/transient credit may not exceed the University guidelines as specified in the “Graduate Studies” section of this Catalog.

Graduation Requirements

Students must complete a minimum of 30 semester hours of coursework and a minimum of 18 hours in discipline 12 of which must be at the 600 level. Students must also complete a minimum of 18 hours at the 600 level. An optional thesis or minor is also available. Specific course work requirements for graduation with the Master of Science and Master of Science in Engineering degree are established by the departments offering the program. The following general requirements are common to all programs.

Optional Thesis

Students electing to complete a thesis must complete a minimum of 24 hours of course work and a minimum of 6 hours of research including a formal master's thesis. The purpose of the thesis is to further the educational development of the student by requiring him or her to plan, conduct, and report an organized and systematic study which makes a contribution to the student's field. The thesis must be directed by a fellow of the graduate faculty. A maximum of 6 hours of research may be counted toward the degree. Only grades of satisfactory or unsatisfactory will be assigned. Each student will work with a faculty advisor to develop a plan for the research that will satisfy the departmental requirements for the degree. A
narrative description of the plan, approved by the faculty advisor, must be submitted to the
program director during the academic term preceding the initiation of work on the research.

Students may do research “in absentia” provided:

1. They have gained the written approval of their research committee and their depart-
   ment chair.
2. They conform to the continuous enrollment guidelines. Payment of fees is the
   responsibility of the student regardless of sponsorship by his or her employer.

Thesis Advisory Committee

A thesis advisory committee is appointed by the graduate program director to each
graduate student electing the thesis option. The committee has oversight responsibility for
the student's research. The committee shall meet all the following requirements:

1. The committee shall consist of at least three members, one of whom must be from
   outside the home department.
2. A majority of the committee shall be full-time faculty of the School of Engineering
   and members of the graduate faculty.
3. The committee chairperson appointment shall be a member of the graduate faculty.
4. Individuals with relevant expertise who are not full-time members of the faculty may
   serve as members of the committee.

Application for Graduation and Degree

Students who expect to qualify for degrees must file a graduation application with the
Office of the Registrar by the dates specified in the University Calendar.

The program director normally recommends to the registrar the awarding of the mas-
ter's degree to any candidate who:

1. has satisfied the requirements of the School of Engineering, and of the home
   department, with respect to course work and academic performance;
2. has an overall grade point average of at least 3.0;
3. has successfully completed the oral defense of any thesis;
4. has received the final approval of any thesis from the appropriate review bodies;
5. has submitted three unbound copies of any thesis with an abstract of not more than
   300 words, certified for accuracy and proper format by the faculty advisor;
6. will have completed all work submitted to satisfy the degree requirements within a
   period of not more than seven consecutive calendar years;
7. is, at the time, a registered student in good standing.

Degree Programs

Biomedical Engineering (M.S.E.)

The two major areas that are emphasized in Mercer's graduate biomedical engineering
program are biomedical instrumentation/imaging and biomechanics/ biomaterials. The pro-
gram is open to all qualified engineers, regardless of undergraduate engineering major.
Admissions to this program may be temporarily suspended during periods of low student
demand. Students who do not have an adequate background in medicine or biology may be
required to take additional courses. The Master's degree program in biomedical engineer-
ing requires a minimum of 30 credit hours with a minimum of 18 hours in major.
BME Courses

BME 610. BME Practice/Emerging Topics (3 hours)
Instruction in the practice of Biomedical Engineering including Good Manufacturing Practices, FDA regulations, and medical device/instrumentation markets. Investigation of emerging biomedical engineering topics of interest such as tissue engineering, surface modification, and implantable controllers.

BME 620. BME Project/Practicum/Research (3 hours)
Faculty supervised student initiated/directed study that may included more in-depth analysis of engineering design project, industry practicum, or research project.

BME 630. Advanced Biomaterials/Mechanics (3 hours)
Investigation of advanced bio-mechanics/material topics in areas such composite materials, viscoelastic models, non-Newtonian fluids, heat/mass transfer.

BME 640. Advanced Bioinstrumentation (3 hours)
Coverage of advanced and emerging topics of bioinstrumentation such as telemetry, imaging, signal processing, and diagnostic/therapeutic instrumentation.

SPECIAL COURSES: BME 691, 692, 693, 698, 699 for variable credit. May be repeated for credit with permission of advisor.

BME 691-692-693. Special Topics (1-6 hours)
Possible topics include:
- Health Care Delivery Systems
- Clinical Information Systems
- Biomedical Applications of Digital Signal Processing
- Advanced Cardiac Mechanics
- Neurophysiology and the Cardiovascular System
- Pharmacokinetics and Drug Delivery Systems
- Radio technology and Radiological Safety
- Clinical Laboratory Procedures
- Clinical Laboratory Automation
- Kidney Function and Kidney Dialysis

BME 698. Professional Seminar (1-6 hours)
BME 699. Thesis Research (1-6 hours)

A maximum of 6 hours of research may be counted toward the degree if the thesis option is chosen. Only grades of satisfactory or unsatisfactory will be assigned.

Computer Engineering (M.S.E.)

Computer Engineering centers around embedded systems. That is in the design of digital and computer systems which are part of a larger whole. Realtime constraints are also present in many embedded systems. At this time there are many more embedded computers than desktop computers. They are in the data transmission systems of wireless and wired digital networks, in the fuel injection system for cars, in the flight control system for airplanes, in the motion control and sensor system for robots, in the control and protection systems of nuclear power plants, and now appear prominently as components in low-cost toys and kitchen appliances. The future undoubtedly holds many more complex embedded systems.
The design of embedded systems requires a range of knowledge and skill. Specifically, software engineering, hardware design, electronic interfacing, computer networks for distributed systems, and computer architecture are all important knowledge areas in computer engineering. In the context of a graduate program which has a software engineering program and an electrical engineering program, computer engineering at Mercer offers the full range of topics listed above, and fills in with courses which integrate the areas.

The master's degree in computer engineering will provide students with the opportunity to pursue advanced study in these areas.

The master of science in engineering curriculum requires that at least 18 of the 30 credits be at the 6XX level. In addition, the master of science in engineering in computer engineering curriculum requires that the 30 credit hours meet the following constraints:

ECE XXX Approved ECE graduate coursework 9 hours
SSE XXX Approved SSE graduate coursework 9 hours
Other approved graduate coursework or thesis 12 hours

Electrical Engineering (M.S.E.)

Electrical engineering is characterized by the breadth and diversity of subject areas that comprise the discipline. It demands, by its nature, intensive application of mathematics and computational tools. The program is designed to prepare the student to apply these tools to engineering problems. Major areas of study include: electronic circuits, communication systems, digital and computer systems, electromagnetics, digital signal processing, and others. Each of these areas has its own sub-areas. For instance communication systems include traditional analog communications, modern digital communications, wireless communication systems, coding theory and other topics. Electro-magnetics includes such areas as antennas, electro-magnetic compatibility, microwaves, and transmission lines. The master's degree program in electrical engineering will provide qualified students the opportunity to pursue advanced study in these areas.

The master of science in engineering curriculum requires that at least 18 of the 30 credits be at the 6XX level. In addition, the master of science in engineering in electrical engineering curriculum requires that the 30 credit hours meet the following constraints:

ECE XXX Approved ECE graduate coursework 18 hours
ECE XXX Approved ECE or other graduate coursework 6 hours
Thesis or other approved ECE or non-ECE coursework 6 hours

ECE Courses

5xx. See undergraduate ECE section of this Catalog for 5xx course descriptions.

ECE 601. Filter Synthesis (3 hours)

ECE 604. Engineering Analysis (3 hours)
Prerequisites: MAT 293 or equivalent, MAT 330 or equivalent.
Topics from linear algebra, complex analysis, and numerical methods. Emphasis on engineering applications.
ECE 623. Computer Architecture (3 hours)
Advanced topics in computer architecture: pipelining, principles, superscalar techniques, vector processors, SIMD computers, MIMD computers, multiprogramming.

ECE 631. Special Topics in Digital Signal Processing (3 hours)
Topics of current interest in DSP. Topics chosen based on student and instructor interest: Implementation considerations for digital filters, hardware structures for DSP, two-dimensional signal processing, digital speech processing, radar signal processing.

ECE 632. Adaptive Signal Processing (3 hours)
Analysis, design, and implementation of adaptive filters: steepest descent algorithms, least squares, Kalman filter, LMS.

ECE 633. Image Processing (3 hours)
Introduction to image processing: perception, imaging, image transforms, image enhancement, restoration, encoding, segmentation, and representation.

ECE 634. Statistical Signal Processing (3 hours)
Random signals and noise, random processes, optimal filters, linear prediction, and spectral estimation.

ECE 635. Detection and Estimation (3 hours)
Methods of parameter estimation of systems: least-squares estimation, properties of estimators, maximum likelihood estimation, maximum a posteriori estimation, state estimation.

ECE 641. Applied Electromagnetic Fields I (3 hours)

ECE 642. Applied Electromagnetic Fields II (3 hours)
Prerequisite: ECE 641.
A continuation of ECE 641.

ECE 643. Microwaves (3 hours)

ECE 651. Digital Communication Systems Design I (3 hours)
Elements of digital communications design, review of random signal theory, key results of information theory, Gaussian and fading channel models, baseband signaling and spectral shaping, quaternary modulation schemes, M-ary modulation techniques, continuous phase modulation, coherent and non-coherent detection of digital signals in Gaussian noise.

ECE 652. Digital Communication Systems Design II (3 hours)
QAM and OFDM, coded signaling, a practical review of linear block codes, brief review of convolution codes, trellis coded-modulation, Coded OFDM, direct sequence spread spectrum signaling, frequency hopping technique, CDMA and its applications in mobile and secure communications, digital signaling over fading channels, digital communication system design examples.

ECE 653. Linear Block Codes (3 hours)
Prerequisite: graduate standing.
Galois field theory, linear block codes, algebraic structure of linear cyclic codes, erasures and soft decoding, BCH and Reed-Solomon codes, Berlekamp-Massy algorithm, code modification and concatenation, burst error correction with Reed-Solomon codes.
ECE 654. Convolutional and Turbo Codes (3 hours)
Linear convolutional codes, structural properties of convolutional codes and weight enumerating functions, punctured convolutional codes, the Viterbi algorithm, SOVA and BCJR algorithms, turbo codes, encoding and interleaving, performance analysis of turbo codes, iterative decoding of turbo codes.

ECE 655. Computer and Data Networks (3 hours)
Prerequisite: ECE graduate standing.
Data characterization and encoding, flow control error control, HDLC protocols, circuit switched networks, packet switched networks, asynchronous transfer mode (ATM) networks, OSI protocols and architecture, TCP/IP protocols, internetworking and the internet.

ECE 656. Wireless Communications (3 hours)
Prerequisite: ECE 451 or Graduate Standing
The cellular concept and the first generation cellular networks, characterization of mobile communication channels, slow fading and link budget analysis for wireless communications, multipath fading and Doppler effect, modulation for wireless communications, channel coding and CDPD system, 2G and GSM architecture, multiple access technologies, introduction to CDMA and 3G.

ECE 657. Radar Fundamentals (3 hours)
Prerequisite: ECE graduate standing.
Generation, detection, and processing of radar signals. Transmitter and receiver characteristics and performance measurement; antenna considerations; range, azimuth, doppler detection; performance in noise.

ECE 661. Linear Control Systems (3 hours)

ECE 662. Fuzzy Logic Control (3 hours)

ECE 669. Special Topics in Control (3 hours)
Prerequisite: ECE 661 or permission of the instructor.
One or more of the following topics: Discrete time control, optimal control, robust control, and nonlinear control.

SPECIAL COURSES: ECE 691, 692, 693, 699 may be taken for variable credit and may be repeated for credit with permission of advisor.

ECE 691, 692, 693. Special Topics (1-6 hours)
ECE 698. Professional Seminar (1-6 hours)
ECE 699. Thesis Research (1-6 hours)

A maximum of 6 hours of research may be counted toward the degree. Only grades of satisfactory or unsatisfactory will be assigned.
Engineering/Technical Management (M.S.E. /M.S.)

The Engineering/Technical Management Master's Degree program builds upon bache-
lor’s degree preparation in several engineering disciplines and other technical programs
such as physics, chemistry, quantitative business administration, etc. Its purpose is to pre-
pare people to successfully address supervisory and managerial needs in a technological
environment. The engineering manager's role is viewed as the link between management
and technical expertise, and involves matching resources in uncoordinated areas, working
through people, and making and implementing management decisions, while simultaneou-
ly formulating technical strategies.

This program combines the concepts of management and business administration with
the technical expertise developed in engineering, mathematics, and the quantitative sci-
ences. Students will take courses in finance for technical managers, program management,
operations research, and engineering economy. They will also select several courses to
build directly upon their bachelor's area of preparation.

Admission Requirements

Each candidate is evaluated separately for admission to the program. However, the fol-
lowing general guidelines will help potential students assess their suitability for the program.

A candidate should:

1. Hold a bachelor’s degree or be earning a bachelors degree from an ABET accred-
ited or equivalent engineering program (for the M.S.E. in Engineering Management)
or in a discipline that emphasizes quantitative reasoning and analysis (for the M.S.
in Technical Management). Such disciplines include, but are not limited to, mathe-
metics, physics, chemistry, biology, computer science, and economics.

2. Be proficient in written and spoken English.

3. Have completed these undergraduate courses:
   a. Mathematics through calculus
   b. Calculus based probability and statistics course
   c. Computer programming
   d. Economics (preferably Engineering Economy).

The program director, on a case-by-case basis, has considerable leeway to offer provi-
sional admission to candidates whose work experience, maturity, or motivation appear to
outweigh deficits in undergraduate preparation.

The master of science in engineering in engineering management and the master of sci-
ence in technical management curricula require that a total of 30 semester hours of gradu-
ate coursework be completed. The program can be arranged with either a thesis option or
an all coursework option.

For both options the following requirements must be satisfied:

1) ETM 620. Applications of Probability and Statistics 3 hours

2) One course selected from:
   ETM 607. Modeling and Simulation
   ETM 645. Operations Research I
   ETM 647. Operations Research II

3) One course selected from:
   ETM 627. Quality Management

3 hours
ETM 641. Reliability and Maintainability Engineering
During Life Cycle Management
ETM 655. Manufacturing Management

4) One course selected from: 3 hours
   ETM 610. Economic Analysis for Manager
   ETM 643. Program Management
   BAM 616. Management and Leadership

'Note that while BAM 616 may be used to satisfy the block 4 course requirement, BAM 616 cannot be used to satisfy the minimum of 18 hours in discipline required by the School of Engineering.

5) Additional approved ETM graduate coursework: 6 hours
   Sub-total 18 hours

For the thesis option:
   ETM 699. Thesis Research 6 hours
   approved 500 or 600 level electives from 6 hours
   the School of Engineering, the Stetson School of
   Business and Economics, or with the consent
   of the student's advisor and program director
   TOTAL hours for thesis option 30 hours

For the all coursework option:
   approved 500 or 600 level electives from the 12 hours
   School of Engineering, the Stetson School of
   Business and Economics, or with the consent
   of the student's advisor and program director
   TOTAL hours for all coursework option 30 hours

A minimum of 18 hours (excluding research hours) of 600 level courses are required for either option.

Engineering/Technical Management Minor

Admission to the minor requires the approval of the engineering management program director. Students approved for this minor complete a minimum of 9 semester hours to include one course from three of the areas indicated by items 1 - 4 above. If at all possible, the student should take ETM 643 as one of these courses.

ETM Courses

ETM 607. Modeling and Simulation (3 hours)
Defining and analyzing problems; deterministic vs probabilistic models; continuous vs discrete models; data requirements and structures; developing computer models; debugging and documentation; validation.

ETM 610. Economic Analysis for Managers (3 hours)
An in-depth treatment of engineering economy applied to engineering and management problems. Taxation; measuring the worth of projects; selecting among multiple alternatives; capital budgeting models; comparing risky projects; replacement analysis.

ETM 620. Applications of Probability and Statistics (3 hours)
Probability distributions; sampling theory; hypothesis testing; single and multi factor analysis of variance; linear regression and correlation; multiple regression; design and analysis of
experiments; emphasis on non-deterministic problems faced by engineers and engineering managers. Stochastic processes.

**ETM 627. Quality Management** (3 hours)
Quality philosophy and quality management concepts, leadership, quality standards, continuous improvement, quality tools, six-sigma, quality costs, employees participation, customer satisfaction, vendor quality, benchmarking, statistical process control, quality function deployment, design of experiments, Taguchi methods, on-line quality and information technology, case studies and success stories in quality, use of spreadsheets and statistical packages to solve real-world quality problems.

**ETM 639. Professionalism, Practice, and Ethics** (3 hours)
Study of the ethical codes of professionals and the relation of these ethical norms to more generally accepted ethical values. Derivation of ethical structures. Delineation of the role of the engineer in assuring public health, safety and welfare.

**ETM 641. Reliability and Maintainability** (3 hours)
Reliability and maintainability considerations during the equipment life cycle.

**ETM 643. Program Management I** (3 hours)
Program management overview, systems theory and concepts, organization structures, organizing and staffing, general and program management functions. The program environment: problems and pitfalls, conflicts and their resolutions. Case analysis and term project.

**ETM 645. Operations Research I** (3 hours)
Models and methods of operations research in solving deterministic engineering and management problems. Includes linear, integer, goal, and dynamic programming; network transportation and assignment problems; and inventory theory.

**ETM 647. Operations Research II** (3 hours)
Models and methods of operations research in solving stochastic engineering and management problems. Includes Markov chains and decision processes; queuing theory and applications; nonlinear programming; decision analysis; and forecasting.

**ETM 655. Manufacturing Management** (3 hours)
Science of manufacturing/automation, lean and agile manufacturing, theory of constraints, factory dynamics, aggregate planning and master scheduling, material requirement planning (MRP), work-in-process (WIP) inventory models, just-in-time (JIT) manufacturing, variability and flexibility in manufacturing, push and pull production systems, shop floor control, production scheduling, supply chain management, capacity management, economic decision making, case studies and real-world applications.

**ETM 657. The Profession in the 21st Century** (3 hours)

**ETM 671. Ergonomics I** (3 hours)
Man-machine interfaces and work station design. Practical examination of noise, vibration, light, and other factors that affect human performance.

SPECIAL COURSES: ETM 691, 692, 693, 694, 695, 696, 697, 698, 699 for variable credit.

**ETM 691, 692, 693, 694, 695, 696, 697. Special Topics** (1-6 hours)
**ETM 698. Professional Seminar** (1-6 hours)
**ETM 699. Thesis Research** (1-6 hours)
A maximum of 6 hours of research may be counted toward the degree. Only grades of satisfactory or unsatisfactory will be assigned.

**Mechanical Engineering (M.S.E.)**

The three major areas comprising mechanical engineering are mechanics, thermal sciences, and materials. Solutions to problems in each of these areas and to more complex problems involving all of these areas require intensive application of mathematics and computational tools. The M.S.E. program in mechanical engineering provides qualified students the opportunity to pursue advanced study in these three areas.

The academic program requires a total of 30 semester hours of credit. In order to provide appropriate depth within the field of study, six courses in mechanical engineering subjects are also required. All students are required to take either MAE 604, Engineering Analysis or MAE 608, Mechanical Engineering Applications of Partial Differential Equations. Both of these courses represent basic techniques of analysis and should be taken as early in the student's program as is practicable.

The master of science in engineering in mechanical engineering curriculum requires that a total of 30 semester hours of graduate coursework be completed. The program can be arranged with either a thesis option or an all coursework option.

For both options:

MAE 604. Engineering Analysis or
MAE 608. Mechanical Engineering Applications
of Partial Differential Equations

additional approved MAE graduate coursework (cannot include MAE 699) 15 hours

Sub-total 18 hours

For the thesis option:

MAE 699. Thesis Research 6 hours
approved 500 or 600 level electives (cannot include MAE 699) 6 hours

TOTAL hours for thesis option 30 hours

For the all coursework option:

approved 500 or 600 level electives (cannot include MAE 699) 12 hours

TOTAL hours for all coursework option 30 hours

A minimum of 18 hours (excluding research hours) of 600 level courses is required for either option.

**Mechanical Engineering Minor**

Students desiring a minor in mechanical engineering must arrange to take a minimum of nine semester hours of MAE prefixed 600 level courses.

All minor programs of study must be approved by the mechanical engineering department chair.

**MAE Courses**

SPECIAL COURSES: MAE 591, 592, 593. May be repeated for credit with permission of advisor.
MAE 591, 592, 593. Special Topics—Lecture Based Courses (3 hours)
Graduate level courses composed of a chosen senior level undergraduate technical elective and additional requirements beyond those specified for the undergraduate students.

MAE 604. Engineering Analysis (3 hours)
Prerequisites: MAT 293 or equivalent, MAT 330 or equivalent.
The solution of ordinary and partial differential equations. Use of Laplace and Fourier transforms, and infinity series to obtain solutions. Emphasis on engineering applications.

MAE 608. Mechanical Engineering Applications of Partial Differential Equations (3 hours)
Prerequisites: MAT 293 or equivalent, MAT 330 or equivalent.
Characteristics and classification of second order equations. Wave equation; boundary value problems with Laplace's equation; Green's function; initial value problems of the wave and heat equations.

MAE 610. Numerical Methods for Engineers (3 hours)
Prerequisites: MAT 293 or equivalent, MAT 330 or equivalent, MAE 310 or equivalent.

MAE 621. Advanced Solid Mechanics (3 hours)
Prerequisite: MAE 320 or equivalent.
Torsion of non-circular shafts, bending of curved beams, membrane stresses in shells, bending of flat plates, bending of beams on elastic foundations, inelastic deformation of members in axial loading, torsion and bending.

MAE 623. Machine Dynamics (3 hours)
Prerequisite: MAE 422 or equivalent.

MAE 630. Advanced Engineering Thermodynamics (3 hours)
Prerequisite: MAE 335 or equivalent.
Theories of thermodynamics and their application to problems in engineering practice and design. Equilibrium, Gibb's function, non-ideal gases, and second law analysis.

MAE 632. Intermediate Fluid Mechanics (3 hours)
Prerequisite: MAE 330 or equivalent.
Study of incompressible viscous flows. Fundamental equations and solutions using both analytical and numerical techniques. Laminar flow, transition, and turbulent flow.

MAE 634. Intermediate Heat Transfer (3 hours)
Prerequisites: EGR 235 or equivalent, MAE 310 or equivalent, MAE 330 or equivalent.
MAE 635. Conduction Heat Transfer (3 hours)  
Prerequisite: MAE 430 or equivalent.  
Mathematical theory of steady state and transient heat conduction: solution of the governing differential equations by analytical and/or numerical methods.

MAE 636. Convection Heat Transfer (3 hours)  
Prerequisite: MAE 430 or equivalent.  
Study of convective energy transport in internal and external flows under both laminar and turbulent conditions. Analytical, numerical, empirical solution techniques for governing equations. Heat exchanger analysis and design.

MAE 637. Radiation Heat Transfer (3 hours)  
Prerequisite: MAE 430 or equivalent.  
Mathematical theory of thermal radiation with design applications. Ideal and non-ideal surfaces, participating media, and radiation in enclosures. Analytical and numerical methods stressed in problem solving.

MAE 640. Aircraft Structural Analysis (3 hours)  
Prerequisite: MAE 320 or equivalent.  

MAE 642. Aircraft Structures Design (3 hours)  
Prerequisite: MAE 320 or equivalent.  
Design of non-buckling beams: design of semi-tension field beams: sandwich panel construction and design: bolted and riveted fittings and connections: welded connections: details in structural design.

MAE 650. Finite Elements (3 hours)  
Prerequisites: MAE 310 or equivalent, MAE 320 or equivalent, MAE 430 or equivalent.  

MAE 660. Materials in Mechanical Engineering (3 hours)  
Prerequisites: MAE 322 or equivalent, MAE 362 or equivalent.  
Analysis of the relationships between the structure of polymeric materials and metals and their mechanical properties. The primary emphasis is on the mechanisms for obtaining strength and ductility in higher strength metals. Materials selection, matching materials and processing with service conditions is considered.

MAE 661. Laminated Composite Materials (3 hours)  
Prerequisites: EGR 252 or equivalent, MAE 320 or equivalent.  
The structure and mechanical properties of composite laminates.

MAE 662. Fatigue and Fracture (3 hours)  
Prerequisites: MAE 310 or equivalent, MAE 322 or equivalent.  
Fatigue and fracture of metals and composites are covered. Fatigue crack initiation, fracture mechanics and fatigue crack growth are covered as well as final fracture.

SPECIAL COURSES: MAE 691, 692, 693, 697, 698, 699 for variable credit. May be repeated for credit with permission of advisor.

MAE 691, 692, 693. Special Topics—Lecture Based Courses (1-6 hours)  
Special topics courses delivered in a traditional classroom/classroom-laboratory setting.
MAE 697. Special Topics—Independent Study/Non-thesis Research (1-3 hours)
A maximum of 6 hours of independent study/non-theses research may be counted toward the degree.

MAE 698. Professional Seminar (1-6 hours)

MAE 699. Thesis Research (1-6 hours)
A maximum of 6 hours of thesis research may be counted toward the degree. Only grades of satisfactory or unsatisfactory will be assigned.

Software Engineering (M.S.E)/Software Systems (M.S.)

Software enables computer systems to fulfill their promise of solving problems and meeting human needs. The application of engineering principles to software development and maintenance is stimulating the emerging profession of software engineering. Software engineering draws from other disciplines as well, such as research and development in artificial intelligence, computer science, and computer technology, to provide software professionals with the tools to solve real world problems. The purpose of this program is to prepare software professionals who are effective in developing and maintaining software for commercial, industrial, and government needs. The program leads to the degree of Master of Science in Engineering in Software Engineering or Master of Science in Software Systems.

Distance Learning

Because of the widespread practice of software engineering, and because students are working professionals, the Software Engineering/Software Systems program has made a firm commitment to distance learning for the M.S.E and M.S. programs. Careful attention to instructional design and student interaction provide effective educational experiences for distance education students. For more information, please see the SSE home page at http://engineering.mercer.edu/academics/gradpgms_sess.htm

Admission Requirements

The Master of Science in Engineering in Software Engineering degree is limited to students with undergraduate degrees in engineering and as a minimum a year of multi-module computer programming in a modern high order language. The degree is particularly appropriate for students who work with software for embedded computer systems. The Master of Science in Software Systems degree is designed for students with undergraduate degrees in subjects other than engineering, e.g., computer science. Students with degrees in subjects other than engineering may qualify for admission to the Master of Science in Software Systems program if they have significant experience in programming and other areas of software development and maintenance. Applications from students with degrees in disciplines other than physical science, mathematics, engineering, and computer science will be considered on a case-by-case basis. At a minimum, all students seeking admission to either program should have a year of multi-module computer programming in a modern high order language or equivalent experience, and a background in quantitative methods.

Academic Requirements

Students enrolled in the program are expected to have a sound foundation in object-oriented and structured programming. This foundation is established in SSE 550 and SSE 554, Object-Oriented Design I and II.
The determination of competence that will result in exemption from the introductory courses, Object-Oriented Design I, SSE 550 or Object-Oriented Design II, SSE 554, will be based on other academic courses or documented work experience utilizing computers.

Curriculum

The objectives of the software engineering and software systems programs are to ensure that all graduates: are proficient in software requirements analysis and software design; are proficient in software construction in using two modern programming languages (Java and C++); are proficient in the use of a modern specification language such as UML; are proficient in the use of software processes; and develop additional proficiency through the selection of appropriate electives. A program of study for the degrees will include SSE 554, SSE 657, SSE 658, and SSE 659. At least eighteen hours of the student’s course work must be taken in the software engineering program. Of the courses taken in the software engineering program at least twelve hours must be taken at the 600 level. Special topics courses cover areas of current interest in software engineering. Students may include in their programs elective courses from other Mercer graduate programs with the prior approval of their committee and/or the SSE program director.

Students choosing the thesis option are required to do a full research program (6 hours of SSE 699), and to write a master's thesis in partial fulfillment of the degree requirements.

Graduate-Level Certificates

Students meet the same admission standards and perform to the same expectations as all other graduate students seeking the M.S.E./M.S. degree. Certificates suitable for framing are awarded at the successful completion of the courses.

Object-Oriented Software Development Certificate

The Software Engineering/Software Systems program offers graduate-level course work leading to a Certificate in Java Software Development. Object-oriented languages (Java, C#, and C++) offer powerful capabilities that support general application development and are especially suitable for Internet. These languages offer the advantages of substantial platform independence and increased opportunity for the use of software libraries. Each of these languages builds on lessons learned from software development in others. This certificate program will prepare the student to apply subject-oriented capabilities to a variety of software development needs. Two courses constitute this certificate program: SSE 550 and SSE 554. Students who exempt SSE 550 may take another object-oriented development course in its place to earn this certificate with the approval of the program director.

Advanced Object Oriented Design Certificate

The Software Engineering/Software Systems program offers graduate-level course work leading to a Certificate in Advanced Object Oriented Design. The state of the art in object oriented design is advancing rapidly. This program will prepare the student to perform object oriented design (including analysis) at an advanced level, and to apply reusable software designs via the application of design patterns. Two courses constitute this certificate program: SSE 657 and SSE 658.

Software Engineering/Software Systems Minor

Admission to the minor requires the approval of the software engineering program director. Students approved for the minor complete a minimum of 9 semester hours consisting of SSE 554; and one of SSE 657, 658, or 659; and one additional SSE course to be selected with the approval of the program director.
SSE Courses

SSE 550. Object-Oriented Design I (3 hours)  
Prerequisite: SSE graduate standing or permission of the program director. This is a beginning course in object-oriented development. It may be taken in one of several object-oriented languages, e.g., C#, Java, or C++.

SSE 554. Object-Oriented Design II (3 hours)  
Prerequisite: SSE 550.  
This second course extends the material covered in SSE 550 with greater breadth and depth. Students will use the same programming language (e.g., C#, Java, or C++) that they used in the prerequisite course. The specific topics covered may vary depending on the language used by the student.

SSE 570. Software Engineering (3 hours)  
Prerequisite: SSE graduate standing or permission of the program director.  
Software engineering overview, including software processes and software project management. Software requirements, requirements engineering processes, system models, prototyping, and formal specification. Software design, distributed systems architectures, object-oriented design, real-time software design, reuse and user interface design. Critical systems, dependability, specification, and development. Verification and validation, software testing, and critical systems validation. Software management, cost estimation, quality management, and process improvement. Software evolution, change, re-engineering, and configuration management.

SSE 572. Disciplined Software Development (3 hours)  
Prerequisite: SSE 550.  
Individual software development practices for estimating, measuring, and controlling process schedule and product quality. May include the Personal Software Process (PSP).

SSE 635. Advanced Computational Techniques (3 hours)  
Prerequisite: SSE 550.  
Topics covered may include genetic algorithms, artificial intelligence, and/or neural networks.

SSE 636. Computational Intelligence Applications (3 hours)  
Prerequisite: SSE 550.  
Applications of computational intelligence to solve problems in a variety of applications, which may include graphic simulations and interfaces.

SSE 643. Advanced Graphic Interfaces (3 hours)  
Prerequisite: SSE 550.  
The development of graphic user interfaces more sophisticated than those covered in the prerequisite course. Development environments and application libraries specifically designed for interface development may be included. Topics may vary significantly depending on the student’s choice of programming language (e.g., C#, C++, or Java).

SSE 657. Object-Oriented Project Methods (3 hours)  
Prerequisite: SSE 550.  
Covers the software development life cycle. General object oriented analysis techniques (OOA) for software and system specifications are presented and applied to develop application domain models and requirements specifications. Techniques for transforming the requirements specifications into designs are presented and applied to develop language independent object oriented designs (OOD). A modern specification language such as UML will be used. Iterative and incremental software processes.
SSE 658. Design Problems and Solutions (3 hours)
Prerequisite: SSE 550.
Advanced topics in object oriented design (OOD), emphasizing the reuse of successful
designs via design patterns. Design quality.

SSE 659. Design Quality and Maintenance (3 hours)
Prerequisite: SSE 550.
Software maintenance and the improvement of the design of existing code. Incremental
development, adding new features with support from refactoring. Design quality.

SSE 660. Software Test (3 hours)
Prerequisite: SSE 550.
Software testing at several levels and at several states of development, including accept-
ance testing. Software validation and verification.

SSE 661. Software Architecture (3 hours)
Prerequisite: SSE 550 or permission of the program director.
A course in software architectural design. All students will begin with a common core of
software architectures and criteria for selecting them. Impact of software architectural
choices on: availability, modifiability, performance, security, testability, and usability.
Students will then explore architectures selected from among the many available.

SSE 674. Software Risk Management (3 hours)
Prerequisite: permission of the program director.
Risk is inherent in virtually every software engineering project. Two kinds of risk are oppor-
tunity risk, which is the loss from avoiding risk, and failure risk, which is the loss from tak-
ing a risk, but failing to achieve the corresponding goal. The loss may be financial, or it may
be competitiveness in a market, or the development and acquisition of reusable software
components, or many other valuable things. This course covers topics such as people,
process, infrastructure, and implementation in software risk management.

SSE 675. Lean and Agile Software Development (3 hours)
Prerequisite: SSE graduate standing or permission of the program director.
Software management and processes with consideration of process impact on cost,
schedule, and development techniques.

SPECIAL COURSES: 691, 692, 693, 698, 699 for variable credit. May be repeated for cred-
it with permission of the advisor.

SSE 691, 692, 693. Special Topics (1-6 hours)
SSE 698. Professional Seminar (1-6 hours)
SSE 699. Thesis Research (1-6 hours)
A maximum of 6 hours of research may be counted toward the degree. Only grades of
satisfactory or unsatisfactory will be assigned.

Technical Communication Management (M.S.)

The Master of Science degree in Technical Communication Management is an innova-
tive graduate degree that is designed for professionals in technical communication who want
to prepare themselves to assume leadership roles within technical communication organiza-
tions. It builds upon bachelor's degree preparation in technical communication or a scientific
or related discipline and upon significant work experience. The M.S. degree combines theo-
ry and research with the best practice. It thus parallels the educational philosophy in the
School of Engineering's other graduate programs: to provide quality education to working
professionals.
Distance Learning

Because of the widespread use of communication technologies in the workplace, and because students are working professionals, the Department of Technical Communication has made a firm commitment to distance learning for the M.S. program in Technical Communication Management. Careful attention to instructional design and student interaction provide effective educational experiences for distance education students. For more information, please see the MSTCO home page at http://www.mercer.edu/mstco.

Degree Requirements

Admission: For full admission, the candidate will hold a bachelor's degree from an accredited institution, have at least a 3.0 undergraduate grade point average, and will have at least three years industry experience. Proficiency in use of the computer is a prerequisite, since students will receive course materials and create projects on the World Wide Web. Students should also be self-managed professionals and highly disciplined learners.

Curricular Requirements: Students will take four course modules plus a capstone and elective. The degree requires a total of 30 semester hours.

Modular Structure: Course modules are designed to provide both breadth and depth of knowledge and experience in the key subject areas for technical communicators. The modules are as follows:

1. Foundations
   - TCO 641. Advanced Tech Communication (3 hours)
   - TCO 650. History and Theory of Tech Communication (3 hours)

2. Applications
   - TCO 605. Usability (3 hours)
   - TCO 620. Multimedia (3 hours)

3. Management
   - TCO 630. Managing People and Projects (3 hours)
   - TCO 632. Knowledge Management (3 hours)

4. Design
   - TCO 660. Information Design (3 hours)
   - TCO 665. Instructional Design (3 hours)

Capstone and Elective

TCO 685. Project Research (3 hours)
Approved Free Elective * (3 hours)

Total Required: 30 semester hours

*Free electives may consist of Special Topics courses, Independent Research topics, or courses taken from another accredited graduate program; requires approval of department chair.

Project Research, Special Courses

TCO 685. Project Research (3 hours)
TCO 691. Special Topics (var. 1-3 hours)
TCO 699. Independent Research (var. 1-3 hours)

Graduate-Level Certificates

Any of the four modules above may be taken for a graduate-level certificate. Students meet the same admission standards and perform to the same expectations as all other
graduate students seeking the M.S. degree. Certificates suitable for framing are awarded at
the successful completion of the module.

Technical Communication Management Minor

Admission to the minor requires the approval of the technical communication manage-
ment program director. Students approved for the minor complete a minimum of 9 semes-
ter hours to include any of the content modules above, plus an additional course from one
of the three remaining modules. Students must perform to the same expectations as all
other graduate students seeking the MS degree.

TCO Courses

TCO 605. Usability (3 hours)
Designing and testing for usability of information products. Course includes study of human
factors related to usability, user and task analysis and design of interfaces and usability test-
ing techniques. Class consists of lecture, seminars and projects.

TCO 620. Multimedia (3 hours)
The course is a study of the theory and practice of using various media to communicate
information. Students plan, design, and create a multimedia product to meet the needs of a
specific audience in a work environment. Attention is given to designing for international or
multi-cultural audiences. Class consists of lecture, seminars and projects.

TCO 630. Managing People and Projects (3 hours)
A study of the best current methods for establishing and managing technical communica-
tion organizations, including international and multi-cultural work teams. Topics include
developing virtual teams, cross-disciplinary work teams, and international considerations.
Class consists of lecture, seminars, and projects.

TCO 632. Knowledge Management (3 hours)
Management of knowledge, both tacit and explicit, is one of the most demanding chal-
lenges faced by information creators and managers. Students study current concepts and
technologies of knowledge management, including such topics as portals, roles of techni-
cal communicators within organizations, political and power issues of knowledge manage-
ment, and effects on business practices. Class consists of lecture, seminars, and research
reports.

TCO 641. Advanced Technical Communication (3 hours)
A detailed examination of the major forms and processes of technical communication,
including reports, instructions, proposals, and online communication. Includes collaboration
and peer review. Emphasis on determining audience and purpose, especially in organiza-
tional contexts, and on effective document design. The course will consider the theoretical
foundations of the major forms of technical communication, the evolution of contemporary
practice, and future directions.

TCO 650. History and Theory of Technical Communication (3 hours)
A study of theory and practice underlying the field of technical communication, including
such topics as rhetorical theory, history of the discipline, and roots of technical communica-
tion in various fields of study. Introduction to research methods in tech comm. Students con-
duct research and present seminar papers.

TCO 660. Information Design (3 hours)
Design of information for many audiences, purposes, and modes of delivery. Emphasis on
writing and developing information for the Web or online delivery, for single sourcing, and for
multiple audiences including international ones. Attention to visual graphical design. Class consists of lecture, seminars, and projects.

**TCO 665. Instructional Design**  
(3 hours)
Designing information products for teaching, training, or instruction using a systematic method. Course includes foundations in cognition and learning theory. Topics include designing for delivery in person, on CD, computer-based training (CBT), Web-based training, etc. Class consists of lecture, seminars, and projects.

**TCO 685. Project Research**  
(3 hours)
Prerequisite: permission of the program director.
A capstone project in which students research, design, and prototype an information product for use in a particular work setting. Students demonstrate mastery of content, methods, and management skills acquired in the MSTCO program. The research team usually works with a client, with the instructor serving as the supervisor of the project team. (Not open to students who are minoring in technical communication.) Class consists of research, team projects, and production of deliverables.

**TCO 691. Special Topics**  
(variable, 1-3 hours)
Topics of interest to technical communicators. May be repeated for up to 6 credits towards the master's degree.

**TCO 699. Independent Research**  
(variable, 1-3 hours)
Students who wish to complete independent studies or research must submit proposals and again approval of the chair of the technical communication department in order to count these credits towards the master's degree. May be repeated for up to 6 credits.
Tift College of Education

Carl Richard Martray, Ph.D., Dean/Professor
Penny L. Elkins, Ph.D., Associate Dean/Professor
Allison C. Gilmore, Ph.D., Associate Dean/Professor
Susan C. Malone, Ed.D., Associate Dean/Associate Professor

Linda Adams, Mary Kay Bacallao, Joseph L. Balloun, Horace W. Fleming, Catherine M. Gardner, Harriet A. Hathaway, Dana H. Lilly, Margaret R. Morris, Michael D. Richardson, Bruce E. Silger, Albert A. Stramiello, and Richard V. Swindle, Professors
Kathy A. Arnett, Richard H. Binkney, Sherah Betts Carr, Jacquelyn M. Culpepper, Brent Daigle, Carl E. Davis, Sammy L. Felton, John H. Finley, Jr., Carolyn R. Garvin, Ismail S. Gyagenda, J. Barry Jenkins, J. Kevin Jenkins, Robert L. Lawrence, Kelly Reffitt, Wynnetta A. Scott-Simmons, Margie W. Sweatman, Sylvia Y. Taylor, Sue Quillian Thrasher, Clemmie B. Whatley, and Stephen W. Wills, Assistant Professors
Sharon Augustine and Margaret S. McCall, Instructors
Vic Verdi, Clinical Instructor
John Payne, Visiting Assistant Professor
Ashley Paige Briandi, Visiting Instructor

The Tift College of Education offers Master of Education degrees in The Collaborative Educator and a Master of Education*, Specialist in Education, and a Doctor of Philosophy in Educational Leadership on the Macon campus. Programs leading to certification are approved by the Georgia Professional Standards Commissions and accredited by the National Council for Accreditation of Teacher Education.

*NOTE: No candidates will be admitted into the M.Ed. in Educational Leadership program for the 2008-09 academic year.

APPLICATION DEADLINES

Applications (including transcripts and other supporting materials) must be received by the following dates:

- August 1 for fall admission
- December 1 for spring admission
- May 1 for summer admission

The Conceptual Framework

Within the context of a distinctive Baptist heritage, the inclusion of the paideia ideal, and the know-how of blending theory and practice, the Tift College of Education has chosen for its conceptual framework the theme: “The Transforming Practitioner - To Know, To Do, To Be.”
TO KNOW
To Know the foundations of the education profession, content bases for curricula, and characteristics of diverse learners.

1. Demonstrates knowledge of the philosophical, historical, sociological, legal, and psychological foundations of education.
2. Demonstrates expertise in the content bases for curricula, the appropriate uses of technology, good communication skills, and effective pedagogy.
3. Shows understanding of and respect for the characteristics, cognitive and social developmental stages, emotional and psychological needs and learning styles of diverse and special needs learners.

TO DO
To Do the work of a professional educator in planning and implementing well-integrated curricula using developmentally appropriate and culturally responsive instructional strategies, materials, and technology.

1. Plans, implements and assesses well-integrated, developmentally-appropriate, and culturally-responsive lessons which are well grounded in pedagogical and psychological theory.
2. Individualizes, differentiates, and adapts instruction to meet the needs of diverse and special needs learners.
3. Uses a wide variety of teaching methods, strategies, technology, and materials.

TO BE
To Be a reflective, collaborative, and responsive decision-maker, facilitator, and role model within the classroom, school, community, and global environment.

1. Believes in his or her own efficacy as an educator and uses feedback, reflection, research, and collaboration to enhance teaching performance, revise and refine instruction, make decisions, develop and modify instruction, and grow as a professional.
2. Models understanding, respect, and appreciation for diverse educational, cultural, and socioeconomic groups; a willingness to consider diverse opinions and perspectives; and concern for community and global awareness.
3. Models positive and effective interpersonal skills interacting with learners, parents, other educators and members of the community.

GRADUATE PROGRAMS
The purpose of the graduate programs in education is to prepare professional educators who will have a philosophy of growth and change based on reliable knowledge about the principles and practices of education. A further objective is to educate teachers and educational leaders in the skills of research and to foster a disposition to initiate and promote basic and applied research. The College will provide courses to meet all program requirements within a minimum of two calendar years from the time the student enrolls. The College is not under obligation to grant individualized study through directed/independent study courses or special topics research courses unless the College fails to schedule the course requirements within the time specified. The policies of the graduate program are under the review of the University Graduate Council.
The Graduate Program of the Tift College of Education recognizes the importance of addressing technological advancements within society. Therefore, emphasis on the relevance of technological developments will be infused throughout courses in the graduate programs.

All course work within the Tift College of Education reflects the faculty’s recognition of students with diverse and special needs. Mercer’s graduate programs are designed to prepare all teachers and educational leaders to plan appropriately for disabled, special needs, and other diverse populations.

**Academic Standards for Graduate Students**

Students must earn a B or better in all graduate courses that apply to the degree. Students in the Ed.S. or Ph.D. program must maintain a cumulative grade point average of 3.5 or above on a 4.0 scale. Students may repeat a class only once in order to increase the grade earned in that class and no student may repeat more than two classes in his/her program of study with Mercer. A student may not repeat an equivalent class at another college in order to replace a grade earned at Mercer.

**Time Limitation in Completion of Requirements**

A student in a graduate program must complete all degree requirements within a six-year period. Time limits shall be computed from and include the first semester of credit applied to the degree program. Students who do not enroll for three consecutive semesters are subject to all program policies, guidelines, and requirements in place at the time of re-enrollment.

**Transfer Credits**

There are certain conditions that must be met to transfer regular graduate credit to Mercer’s graduate programs. The institution must be accredited and the student must be admitted to the institution’s regular graduate program. Graduate work taken at other institutions must be part of a planned program leading to a degree equivalent to the degree sought at Mercer.

The work must be appropriate for the student's planned program. The maximum amount of transferred credit is limited to six semester hours for the M.Ed. program for teachers. For the M.Ed. and Ph.D. programs in Educational Leadership, nine hours of transfer credit may be accepted; for the Ed.S. in Educational Leadership transfer credit is limited to six hours. Only courses in which the student earned a B or better will be considered for transfer credit. Courses taken for another degree previously earned may not be applied to a degree at Mercer (exception: nine hours of an Ed.S. may be counted towards the Ph.D.). No credit will be given for courses completed more than six years prior to the date on which the Mercer degree is to be conferred.

**Admissions Appeals Policy**

Prospective students who have been denied admission to any classification within the graduate program may appeal that decision in writing to the Associate Dean or a designated representative. Each appeal will be reviewed and decided upon by the faculty in regular business session. Admission does not ensure satisfactory completion of the program selected nor recommendation for certification.

**English Proficiency**

An international student whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL) or a Certificate of Proficiency from an ELS.
Language Center. The minimum acceptable TOEFL score is 550. English proficiency at ELS Level 109 is expected.

**Grade Appeals Policy**

Students are encouraged to first meet with their instructor to discuss any disagreements regarding a grade. They may then appeal to the chair of the department. If satisfaction is not achieved, the student may then wish to submit an appeal to the Grade Appeals Committee. Grade appeals must be submitted in writing within thirty days after the grade has been issued.

**Course Load**

An academic load of 9 semester hours qualifies a graduate student for full-time status for financial aid. Requests for overloads beyond 9 hours must be approved by the Dean.

**Code of Ethics for Educators**

All students admitted into the Tift College of Education are expected to abide by the Code of Ethics for Educators as published by the Georgia Professional Standards Commission. Violation of any standard within the Code of Ethics may result in dismissal from the program.

**Participation in Commencement Ceremonies**

Students who have met all degree requirements may participate in the Commencement ceremony. Other M.Ed. and Ed.S. students may participate if they meet both of the following conditions:

1. If they are within nine hours of completing all degree requirements and are scheduled to complete those requirements in the summer semester.
2. If they meet the minimum GPA requirements for the degree.

Ph.D. candidates must complete all degree requirements prior to participating in commencement.

**COLLABORATIVE EDUCATOR**

**MASTER OF EDUCATION**

**Mission Statement for the Collaborative Educator, M.Ed.**

The Collaborative Educator, a masters program within the Tift College of Education, provides a pathway for professionals seeking advanced knowledge and growth along the continuum of philosophical, cognitive, and cultural empowerment. Acknowledging that the personal self is the cornerstone for the development of the professional self, candidates negotiate both place and identity within a collaborative framework.

**The Goals:**

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<tr>
<th>Mercer University Goals</th>
<th>The Collaborative Educator Goals</th>
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<tbody>
<tr>
<td>To offer graduate and professional programs based upon a strong liberal arts foundation</td>
<td>To demonstrate the characteristics of a transforming practitioner at a mastery level</td>
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<td>To support a highly qualified faculty that</td>
<td>To understand and participate in a</td>
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is student and teaching oriented and is engaged in scholarly research and professional activities. To foster independent and critical thinking and a continuing interest in learning.

To foster intellectual and spiritual freedom in an environment that encourages tolerance, compassion, understanding, and responsibility. To offer a variety of intellectual, cultural, recreational, and spiritual activities designed to enlarge capacity for improved judgment and moral, ethical, and spiritual growth. To encourage the enrollment of qualified persons from diverse backgrounds and situations.

To contribute campus resources in partnership with other institutions and agencies to improve the educational, social, and economic development of the community. To understand and participate in a collaborative relationship with other professionals and parents in planning and implementing instructional programs. To understand and participate in a collaborative relationship with other professionals and parents in planning and implementing instructional programs.

Outcomes: (Correlated to the Conceptual Framework of the Tift College of Education - The Transforming Practitioner – To Know, To Do, To Be)

The graduate candidate:

1. Plans curriculum connected to the characteristics of the learners (To Know, To Do)
2. Assesses, diagnoses, and evaluates curricular practices and learners (To Know, To Do)
3. Recognizes the importance of schools and/or related agencies meeting the educational, psychological, and social needs of students and families in a well-planned holistic manner (To Know, To Be)
4. Plans and manages the teaching and learning environment (To Know, To Do)
5. Manages students’ behavior and social interaction skills (To Know, To Do)
6. Communicates and collaborates with partnerships (To Know, To Do)
7. Practices professionalism and ethical practices (To Be)
8. Plans instructional content and classroom practices (To Know, To Do)
9. Performs action research (To Do)

Criteria for Admission:

To be considered for regular admission to The Collaborative Educator master’s program, an applicant must hold a baccalaureate degree in an appropriate field and meet the following requirements:
1.) An academic grade point average of 2.75 (4.0 scale) for the last two years of undergraduate study;
2.) Two official copies of all transcripts;
3.) Two letters of recommendation from professionals in the field of education;
4.) A letter of intent, which should include
   a. Reasons for pursuing graduate study
   b. Professional and academic interests
   c. Professional goals that you intend to pursue upon completion of your graduate program
   d. A brief description of any personal, cultural, educational and/or professional experiences that you believe have significantly influenced your career choice and accomplishments to-date.
   e. A statement of any factors (e.g., disability, educational opportunity, economic factors, etc.) you believe may have influenced your GPA and/or GRE scores.
5.) Results from a national standardized achievement/aptitude test predictive of the ability to complete a graduate program successfully. These include the Graduate Record Examination (target score of 800, quantitative and verbal) or the Miller Analogies Test (target raw score of 41 before October, 2004 OR 397 after October, 2004).
6.) An interview with graduate faculty;
7.) English Proficiency: Any international student whose native language is not English must submit results of the Test of English as a Foreign Language (TOEFL) or a Certificate of Proficiency from an ELS Language Center. The minimum acceptable TOEFL score is 550. English proficiency at ELS Level 109 is accepted.
8.) A $25.00 application fee.

An applicant who fails to meet the above criteria for regular admission may be considered for provisional admission on an individual basis. Students accepted on a provisional basis must obtain grades of B or better on the first nine (9) hours of specified course work.

Program Design:
- 30 semester hours
- Cohort Groups
- 2 courses per semester
- Candidates for cohort groups include:
  1. Certified Classroom Teachers
  2. Child and Family Specialists
  3. Childcare Professionals
  4. Health Educators
- This program does not lead to initial teacher certification

Degree Requirements – 30 semester hours:
Professional and Pedagogical Studies
    EDUC 604. Philosophy and School Structures (3 hours)
    EDUC 606. Cognitive Empowerment (3 hours)
    EDUC 608. Advanced Curriculum Planning (3 hours)
    EDUC 610. Assessment – Formal and Informal (3 hours)
    EDUC 689. Action Research Project (3 hours)
Content Studies

EDUC 632. Building Home/School Community Partnerships (3 hours)
EDUC 633. Classroom Management for the Diverse Learner (3 hours)
EDUC 634. The Culturally and Linguistically Diverse Classroom (3 hours)
EDUC 635. Counseling for Emotional Empowerment (3 hours)
EDUC 640. Pedagogy for All Learners (3 hours)

Special Student Classification

Students seeking re-certification, certification in an additional field or transient enrollment will be assigned to the classification of “Special Student.” This classification allows students to enroll for graduate credit upon completion of the following admissions requirements:

1. Application
2. Transcripts (not required for transient students)
3. Additional requirements as applicable:
   a. Re-certification or add-on certification: Copy of letter from Professional Standards Commission or school system outlining the courses required for re-certification or for adding a field (if applicable); copy of teaching certificate.
   b. Transient students: Copy of a letter of transient permission from the degree granting college or university.

Add-On Certification

Students interested in adding other fields to a current certificate should see their advisor. In most cases, it is recommended that the student contact the Georgia Professional Standards Commission for information on requirements for adding a field to a current certificate.

EDUCATIONAL LEADERSHIP

Conceptual Framework: The Transformational Leader

TO KNOW

To Know the foundations of the education profession, content bases for curricula, and characteristics of diverse learners.

1. Demonstrates knowledge of the philosophical, historical, sociological, legal, and psychological foundations of education.
2. Demonstrates leadership and expertise in the content bases for curricula, the appropriate uses of technology, good communication skills, and effective pedagogy.
3. Shows leadership and understanding of and respect for the characteristics, cognitive and social developmental stages, emotional and psychological needs and learning styles of diverse and special needs learners.

TO DO

To Do the work of a professional educational leader in encouraging teachers to plan and implement well-integrated curricula using developmentally appropriate and culturally responsive instructional strategies, materials, and technology.
1. Plans, implements and assesses a well-integrated developmentally appropriate, and culturally responsive school vision that is well grounded in pedagogical and psychological theory.

2. Leads teachers to individualize, differentiate, and adapt instruction to meet the needs of diverse and special needs learners.

3. Leads teachers to use a wide variety of teaching methods, strategies, technology, and materials.

4. Develops, articulates, and implements a school vision that promotes a positive school culture, provides an effective instructional program, applies best practices, and helps to develop the professional growth of teachers and other school personnel.

5. Manages the organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment.

**TO BE**

To be a reflective, collaborative, and responsive decision-maker, facilitator, and role model within the school, community, and global environment.

1. Uses feedback, reflection, research, and collaboration to enhance leadership performance, make decisions, develop and modify leadership skills, and grow as a professional.

2. Models understanding, respect, and appreciation for diverse educational, cultural, and socioeconomic groups; a willingness to consider diverse opinions and perspectives; and concern for community and global awareness.

3. Models positive and effective interpersonal skills by collaborating with families, other community members, responding to diverse community interests and needs, and by mobilizing community resources.

**Educational Leadership Program Outcomes**

Candidates who complete the graduate degree programs in educational leadership are leaders who will be able to promote the success of ALL students by:

1. Facilitating the development, articulation, implementation, and stewardship of a school vision of learning that is shared and supported by the school community. **To Know**

2. Advocating, nurturing, and sustaining a school culture and instructional program conducive to student learning and staff professional growth. **To Know and To Do**

3. Ensuring management of the organization, operations, and resources for a safe, efficient, and effective learning environment. **To Know and To Do**

4. Collaborating with families and community members, responding to diverse community interests and needs, and mobilizing community resources. **To Know, To Do and To Be**

5. Acting with integrity, fairness, and in an ethical manner. **To Be**

6. Understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context. **To Know, To Do and To Be**

7. Synthesizing and applying program knowledge and skills through substantial, sustained, standards-based work in real settings. **To Know, To Do and To Be**
M.Ed. Degree in Educational Leadership

The master's degree in educational leadership is designed as an entry level program into the field of leadership. Candidates who complete degree requirements for the M.Ed. and pass certification tests will be eligible for non-renewable initial leadership certification (NL-5). Practicing teachers who have at least three years of successful teaching experience and who wish to expand their leadership skills and knowledge are primary program candidates.

Goals of the Educational Leadership M.Ed. Program

1. To prepare educational leaders for Georgia’s schools.
   Research and experience indicate that principals and supervisors have a crucial role in the success of our schools. Genuine school improvement takes place in the local school setting. The opportunity to educate the educational leaders who will give direction to our public schools is significant and meaningful. Mercer University seeks to prepare dynamic leaders who will be transformational in the professional community.

2. To meet the growing demand for highly trained school leaders in Georgia.
   The need for highly trained school leaders is becoming more critical for Georgia school systems.

3. To provide an alternative for teachers seeking an advanced degree.
   The program in educational leadership provides substantive opportunities for professional growth and development to qualified teachers.

4. To develop partnerships with public schools and agencies.
   Mercer University’s Statement of Goals recognizes the importance of developing partnerships with other institutions and agencies to improve the educational and leadership development of the community.

   Program outcomes were developed to support the above goals and to develop transformational leaders. These outcomes are based on national ELCC standards and hold candidates to the highest of academic measures.

Admission Requirements

All persons who wish to enter the program must file a formal written application for admission to graduate studies. A qualification for admission is a bachelor’s degree from a regionally accredited college or university in an approved teaching field. All students must take an approved graduate test and present satisfactory scores (scores must be less than six years old at the time of admission) before being admitted to the M.Ed. program in Educational Leadership. Brief interviews will be required prior to admission to the program. Not all qualified applicants will be accepted. Candidates applying to the master’s program must provide the following:

1. A bachelor’s-level teaching or service certificate and evidence of three successful years of experience.
2. A minimum overall undergraduate grade point average of 2.75.
3. Results from a national standardized achievement/aptitude test predictive of the ability to complete a graduate program successfully. These include the Graduate Record Examination (target score of 800, quantitative and verbal) or the Miller Analogies Test (target raw score of 41 before October, 2004 OR 397 after October, 2004). Scores must be less than six years old at the time of admission. Students who do not have acceptable test scores may be admitted for one semester only on...
a provisional basis. Provisionally admitted students will be allowed to register for a maximum of two classes during their provisional semester and will not be allowed to register for additional classes until acceptable test scores are presented.

4. Two official copies of transcripts from all colleges/universities previously attended.

5. A $25 application fee.

6. Must have met the Georgia requirement (a minimum of three or more semester hours) in the identification and education of students that have special educational needs.

7. Must have met proficiency in instructional technology, either by attaining an acceptable score on a PSC-approved test or computer-skill competency or by completing a PSC-approved training course or equivalent.

8. Must present a letter of recommendation from the school system in which the candidate is employed.

All admission requirements must be met with required documentation on file prior to registration for the first course. The M.Ed. and "add-on" programs in Educational Leadership are offered as a cohort model with new cohorts admitted the fall of each academic year. Applications (including transcripts and other supporting material) must be received by August 1.

**Degree Requirements - 36 semester hours:**

- EDEL 605. Leadership in Curriculum (3 hours)
- EDEL 615. Leadership in Today's Schools (3 hours)
- EDEL 625. Managing the School Environment (3 hours)
- EDEL 635. Assessment & Evaluation in Today's Schools (3 hours)
- EDEL 645A. Internship I (3 hours)
- EDEL 645B. Internship II (3 hours)
- EDEL 655. School Law and Ethics (3 hours)
- EDEL 665. Leadership in Instructional Supervision (3 hours)
- EDEL 675. Foundations of Leadership (3 hours)
- EDEL 685. Technology for School Leaders (3 hours)
- EDEL 695. Educational Research for School Leaders (3 hours)
- EDEL 697. School, Community, & Society (3 hours)

**Exit Criteria for the Master of Education in Educational Leadership Degree**

The exit criterion for the M.Ed. program in Educational Leadership is successful completion of EDEL 695 Educational Research for School Leaders and EDEL 645B Internship II.

**Add-on Certification**

In addition to a course of study for the master's degree program in educational leadership, the Tift College of Education offers add-on certification in this field for candidates who hold master's level certification in a teaching field and who have successfully completed a minimum of three years of teaching. Candidates who complete courses for add-on certification at the initial leadership level and pass required certification tests will be eligible for non-renewable leadership certification (NL-5). The courses that must be taken to achieve the "add-on" certification are as follows:

- EDEL 605. Leadership in Curriculum
- EDEL 615. Leadership in Today's Schools
Admission Requirements for Add-on Certification in Educational Leadership

All persons who wish to enter the add-on certification program in educational leadership must file a written application for admission. To be admitted to the add-on program, an applicant must:

1. Hold a master's degree from an accredited institution and possess or be eligible for a master's level certificate in a teaching or service field.

2. Have a minimum of a 3.0 grade point average on all graduate coursework attempted.

3. Have completed three years of acceptable experience.

4. Submit results from a national standardized achievement/aptitude test predictive of the ability to complete a graduate program successfully. These include the Graduate Record Examination (target score of 800, quantitative and verbal) or the Miller Analogies Test (target raw score of 41 before October, 2004 OR 397 after October, 2004). Scores must be less than six years old at the time of admission.

[Note: A candidate who was required to take the GRE or MAT for the master's degree that s/he currently holds will NOT be required to retake the test for admission, but must submit a copy of those scores prior to admission.]

5. Two official copies of transcripts from all colleges/universities previously attended.

6. A $25 application fee.

7. A recommendation from the school system in which the candidate is employed.

SPECIALIST IN EDUCATION IN EDUCATIONAL LEADERSHIP

The Ed.S. in Educational Leadership program aligns with the conceptual framework of the college, The Transformational Leader and is correlated with the latest national standards in educational leadership, the Educational Leadership Constituent Consortium (ELCC) standards. The degree will include two tracks — one for building-level school leadership and one for system-level school leadership. Candidates who complete degree requirements and pass the PSC-required certification test will be eligible for performance-based leadership certification (PL-6) at either the building or system.

Program Goals for the Ed.S. in Educational Leadership

1. To prepare building-level and system-level educational leaders for Georgia's schools.

Research and experience indicate that principals and supervisors play a crucial role in the success of our schools. Genuine school improvement takes place in the local school or district setting. The opportunity to educate leaders who will give direction to public schools is significant and meaningful. Mercer University seeks to prepare dynamic building and system level leaders who will be transformational in the professional community.
2. To meet the growing demands for highly-skilled school leaders in Georgia.
   The need for highly skilled school leaders is critical for Georgia’s school systems.

3. To develop partnerships with public schools and agencies.
   Mercer University recognizes the importance of developing partnerships with other institutions and agencies to improve the educational and leadership development of the community.

Admission Requirements for Performance-Based Leadership (PL-6)
Ed.S. in Educational Leadership:

Tier I: (1st 21 hours; the equivalent of current L-5 certification program)
1. Hold a master’s degree from an accredited institution and possess or be eligible for a master’s level certificate in a teaching field.
2. Have a minimum GPA of 3.0 for all graduate coursework attempted.
3. Have completed three years of successful teaching experience.
4. Submit a target score of 800 on the verbal and quantitative sections of the GRE; OR a target raw score of 41 on the Miller’s Analogies Test (before October 2004); OR a target scaled score of 397 on the Miller’s Analogies Test (after October 2004).
5. Submit two official copies of transcripts from all colleges/universities previously attended.
6. A $25 application fee.
7. Must present a letter of recommendation from the school system in which the candidate is employed.

Tier II: Admission to Ed.S. Degree Candidacy
1. A copy of current L-5 (or NL-5) certification from the Georgia Professional Standards Commission.
2. Submit a target score of 1100 on the verbal and quantitative sections and a target score of 4.0 on the analytical/writing section of the GRE.
3. A current vita or resume.
4. Two official copies of all transcripts of academic work showing a minimum cumulative GPA of 3.5.
5. Three official letters of recommendation; one of these must be from a school system supervisor verifying that the candidate holds a job in school leadership.
6. A $30 application fee.
7. Participation in a required interview with program faculty.
8. A signed and dated writing sample and narrative of career and academic goals to be completed at the interview.

Ed.S. in Educational Leadership Degree Requirements (30 semester hours)

Professional Studies (21 hours)
EDEL 605 Leadership in Curriculum (3 hours)
EDEL 615 Leadership in Today's Schools (3 hours)
EDEL 625 Managing the School Environment (3 hours)
EDEL 635 Assessment and Evaluation (3 hours)
EDEL 645A Internship I (3 hours)
EDEL 655 School Law (3 hours)
EDEL 665 Leadership in Instructional Supervision (3 hours)

**Building-Level Track (9 hours)**
EDEL 703 The Principalship (3 hours)
EDEL 697 School, Community and Society (3 hours)
EDEL 645B Internship II (Building Level) (3 hours)

**System Level Track (9 hours)**
EDEL 704 The Superintendency (3 hours)
EDEL 832 School Finance and Budgeting
EDEL 645B Internship II (System Level) (3 hours)

**Exit Criteria for the Specialist in Education Degree in Educational Leadership**

The exit criterion for the Ed.S. in Educational Leadership is successful completion of EDEL 645B Internship II.

**Doctor of Philosophy Degree**

Mercer University’s Doctor of Philosophy (Ph.D.) in Educational Leadership, with a choice of emphases in P-12 school leadership or higher education leadership, is designed as an advanced program in the field of leadership to provide school practitioners with a solid blend of educational theory, research and practice. Mercer's conceptual framework, curriculum strands and program outcomes were a guide in the development of course outlines in the doctoral program thus providing a tightly designed curriculum that ensures that all doctoral candidates will receive a 24 semester hour core knowledge base, supported by a strong foundation in both qualitative and quantitative research strategies.

**Goals of the Ph.D. Program in Educational Leadership**

1. To prepare educational leaders for Georgia’s schools.

   Research and experience indicate that principals and supervisors have a crucial role in the success of our schools. Real school improvement takes place in the local school and district level. The opportunity to educate the educational leaders who will give direction to our public schools is significant. Mercer University seeks to prepare dynamic leaders who will be transformational in the professional community.

2. To meet the growing demand for highly trained school leaders in Georgia who are consumers of research and whose practices are influenced by that research.

   The need for highly skilled school leaders is becoming more critical for Georgia’s school systems. School leaders must be well versed in current research, prepared to conduct action research to influence school policies and the instructional program, and be responsible for expanding community and/or civic influence.
3. To provide leaders in higher education with a research-based and applicable skill sets to ensure successful operations of college and university programs. It is imperative that leaders in the higher education community are skilled researchers and consumers of research who make informed operational decisions and who are leaders in public policy and structure of the academic profession.

4. To develop partnerships with public schools and agencies.

Mercer University recognizes the importance of developing partnerships with other institutions and agencies to improve the educational and leadership development of the community. Through this professional collaboration, change can be made that is systematic and pervasive.

**Admission Requirements**

Candidates who are admitted to the Ph.D. program should represent the highest in academic standards. Not all qualified applicants will be accepted. Criteria for candidates applying for admission include:

1. A completed Ph.D. in Educational Leadership application form
2. For the P-12 School Leadership track: A copy of current L-5 certification from the Georgia Professional Standards Commission
3. Results from a national standardized achievement/aptitude test predictive of the ability to complete a graduate program successfully. For the doctoral program, the test is the Graduate Record Examination (target score of 1100, quantitative and verbal, and a 4.0 on the analytical section). Scores must be less than six years old at the time of admission. GRE scores are not the sole criteria; applicants with scores lower than the target are encouraged to apply and will need to provide stronger evidence of the ability to complete doctoral courses and independent research in other areas.
4. A current vita or resumé
5. Two official copies of all transcripts of academic work showing a minimum cumulative graduate GPA of 3.5
6. Three professional letters of recommendation; for the P-12 School Leadership track, one of these letters must be from a school system supervisor
7. A $35 non-refundable admissions processing fee made payable to Mercer University
8. Participation in a required interview with program faculty
9. A signed and dated narrative of career and academic goals and a writing sample to be completed at the interview.

All admission requirements must be met with required documents on file prior to registration for the first course. The Ph.D. program in educational leadership is offered as a cohort model, with new cohorts admitted each academic year.

**Degree Requirements – 63 semester hours**

*Each course listed is 3 semester hours*

**Ph.D. Core (24 semester hours)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>EDEL 800</td>
<td>Advanced Leadership Theory</td>
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<tr>
<td>EDEL 801</td>
<td>Organizational Theory and Behavior</td>
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430 / MERCER UNIVERSITY
EDEL 820 Literature Review of Current Issues in Educational Leadership
EDEL 830 The Ethics of Leadership
EDEL 850 Internship in Educational Leadership
EDEL 898 Dissertation I
EDEL 899 Dissertation II
Elective

Ph.D. Research Block (15 semester hours)
EDEL 802 Program Assessment, Evaluation and Design
EDEL 810 Seminar in Research Methodology
EDEL 811 Quantitative Research Methodology
EDEL 812 Qualitative Research Methodology
EDEL 813 Advanced Inferential Statistics

Professional Studies (24 semester hours) – P-12 School Leadership Track
EDEL 821 Policies, Politics & Cultural Aspects of School Leadership
EDEL 822 Collaborative Strategies: Strengthening Internal and External Relationships
EDEL 823 Human Motivation Leadership
EDEL 824 Legal Research and Analysis
EDEL 825 Learning and Cognition in Curriculum and Instruction
EDEL 831 Effective Human Resources Practices
EDEL 832 School Finance and Budgeting
EDEL 833 Facilitating Professional Learning and Development

Professional Studies (24 semester hours) – Higher Education Leadership Track
EDEL 823 Human Motivation Leadership
EDEL 840 Literature Review of Current & Historical Issues in Higher Education
EDEL 841 Higher Education Student Affairs
EDEL 842 Higher Education Financial Affairs
EDEL 843 Higher Education Academic Affairs
EDEL 844 Higher Education Administrative Affairs
EDEL 845 Higher Education Law
EDEL 846 Policy and Politics in Higher Education

Performance-Based (PL-6) Building Level or System Level Track Option

For admission into the PL-6 certification only option, candidates must be fully admitted into the Ph.D. in Educational Leadership program; have a job in school leadership, either system or building level; have passed GACE II in Educational Leadership; and hold a current L-5 or NL-5 leadership certificate.

Note: Choosing the PL-6 option could increase the number of needed hours to complete the Ph.D. in Educational Leadership.

Building Level Track (9-12 hours)
EDEL 703 – The Principalship (3 hours)
EDEL 697 – School, Community and Society (3 hours)
EDEL 645B – Internship II (Building Level) (3-6 hours)

System Level Track (9-12 hours)
EDEL 704 – The Superintendency (3 hours)
EDEL 832 – School Finance and Budgeting
EDEL 645B – Internship II (System Level) (3-6 hours)
Academic Standards

Candidates for the Ph.D. in Educational Leadership degree must meet and maintain the following program standards:

1. A cumulative grade point average of 3.5 or above on a 4.0 scale is required in all courses attempted to satisfy degree requirements.
2. No grade below a B may be used to satisfy degree requirements.
3. A course in which a candidate earns a C or lower may be repeated only once. Up to 6 semester hours of courses for graduate credit may be repeated. A candidate may not take an equivalent course at another university to replace a grade earned at Mercer.
4. All degree requirements must be completed within a six-year period.
5. Students who do not enroll for three consecutive semesters are subject to all program policies, guidelines, and requirements in place at the time of re-enrollment.

Exit Criteria for the Doctor of Philosophy Degree in Educational Leadership

A dissertation is required of all candidates for the Doctor of Philosophy degree. Candidates who are writing a dissertation should obtain, from their graduate advisors, a copy of the regulations for preparing and submitting a dissertation. These regulations should be followed carefully in preparing the manuscript. After approval by the appropriate committee within the Tift College of Education, a dissertation should be submitted to the chief academic officer of the University, accompanied by a receipt indicating payment of all applicable graduation and dissertation fees.

COURSE DESCRIPTIONS
NOTE: course requirements may include field experience.

EDUCATION (EDUC)

EDUC 604. Philosophy and School Structures (3 hours)
The educational philosophies influencing educational practice and how these have influenced the existing structures of schooling are addressed. An introduction to educational research is integrated in order to aid candidates in the acquisition of skills and knowledge needed to study the existing structures in schools. An electronic portfolio is generated as an on-going assessment instrument.

EDUC 606. Cognitive Empowerment (3 hours)
Psychological principles of human behavior and the relationship of growth and development of the learning process are studied, including motivation, readiness, transfer and learning, individual differences, and personality theories. Both cognitive and affective dimensions of learning are addressed.

EDUC 608. Advanced Curriculum Planning (3 hours)
An in-depth examination of issues related to the education of P-12 student with and without special needs, as well as appropriate curriculum and instructional strategies for meeting these needs are reinforced. Attention is given to the modification of curriculum and instruction in order to adapt to the needs of students with MR, LD, and BD. Student assessment, management of problem behaviors, and curriculum individualization are examined.
EDUC 610. Assessment – Formal and Informal (3 hours)
This course focuses on the purposes and types of assessments of student learning used in today’s classrooms. Topics of discussion/research include traditional and alternative forms of formal and informal assessment, authentic assessment, Bloom’s Taxonomy as related to assessment, rubrics and other evaluative tools, and the role of the Georgia Performance Standards in student assessment. Appropriate emphasis is placed on preparation for implementation of an action research/assessment project in a field setting.

EDUC 632. Building Home/School/Community Partnerships (3 hours)
An investigation of home, school, and community provides techniques and strategies for creating respectful, reciprocal relationships to support and empower families, and to involve all families in their children’s development and learning. Successful home, school, and community involvement programs are reviewed and analyzed. Effective communication strategies for families and other professionals are examined.

EDUC 633. Classroom Management for the Diverse Learner (3 hours)
This course is an extension and enhancement of the theory, knowledge, and strategies for classroom management for educators who work with diverse learners. Focus is an in-depth study of specific research-based management strategies and programs for gaining and maintaining student cooperation in the classroom. Specific problems, such as violence, are addressed.

EDUC 634. The Culturally and Linguistically Diverse Learner (3 hours)
Providing students with theories, knowledge, and strategies for understanding and teaching the culturally and linguistically diverse student populations in today’s classroom, this course goes beyond the usual rhetoric promoting diversity to present real-world guidance and recommendation for successful teaching in the changing classroom environment.

EDUC 635. Counseling for Emotional Empowerment (3 hours)
Candidates learn the history, culture, and expectations of various ethnic and cultural groups and develop cross-cultural communication skills necessary to address the unique challenges diversity brings to the provision of counseling and psychological service within school and among community agencies. Critical issues of place, identity, sexism, immigration, poverty, and racism influence counseling practices and development of interventions.

EDUC 640. Pedagogy for All Learners (3 hours)
Active learning models demonstrated throughout the masters programs (e.g., experiential teaching, problem-solving teaching, active learning), are connected theoretically to the needs of all learners. Pedagogically grounded in the constructivist theory, these research-based instructional strategies are presented in a culminating manner for increased and effective student learning.

EDUC 689. Action Research Project (3 hours)
The action research project requires an extensive review of educational literature in a selected area of study – connected to an applied research project in a field setting. The project is planned and executed by the candidate under the direction and supervision of the instructor. (Program assessment/exit criterion)

Educational Leadership (EDEL)

EDEL 605. Leadership in Curriculum (3 hours)
This course provides a study of how philosophical underpinnings impact the design, construction, evaluation and revision of curriculum. Special attention is given to the instruction-
al leader's role in the continuing process of curriculum development, selection, and evaluation.

**EDEL 615. Leadership in Today's Schools** (3 hours)
A study of current organizational and leadership theories in education and an examination of professional competencies needed in leadership positions with application to actual school situations.

**EDEL 625. Managing the School Environment** (3 hours)
A study of school business management and finance designed to provide the educational leader with basic principles of school management, accounting and purchasing procedures, school finance and information systems. Emphasis will be placed on equipping educational leaders with a foundation of leadership principles designed to enhance personnel management skills.

**EDEL 635. Assessment & Evaluation in Today's Schools** (3 hours)
This course provides an overview of assessment practices for improvement of student learning. A major focus will be placed on analysis of various assessment measures available to improve the teaching and learning process.

**EDEL 645A, 645B. Internship I, II** (3 hours each)
This course provides a supervised administrative/ supervisory field experience in a placement appropriate to career objectives and approved by the faculty advisor (requires 80 clock hours). Includes seminars for debriefing and reflection.

**EDEL 655. School Law and Ethics** (3 hours)
This course provides an overview of relevant school law topics. The legal aspects of teaching and the rights, responsibilities, and ethics of professional service will be emphasized. Laws and standards that directly impact the work of teachers and school administrators will be examined.

**EDEL 665. Leadership in Instructional Supervision** (3 hours)
This course provides an in-depth study of leadership strategies for instructional supervision and improvement. Principles of human development theory along with research based adult learning and motivational theories will be applied. Special topics will include the development of comprehensive professional growth plans and the application of best practices for student learning.

**EDEL 675. Foundations of Leadership** (3 hours)
This course explores the phenomenon of leadership from a research as well as theoretical perspective focusing upon critical education outcome elements and the process elements which contribute to organizational effectiveness.

**EDEL 685. Technology for School Leaders** (3 hours)
This course is designed to provide educational leaders with the knowledge to develop practical approaches to planning, organizing, and directing the integration of technology into the school curriculum. Emphasis will be placed on the use of technology both for administrative and curricular purposes.

**EDEL 695. Educational Research for School Leaders** (3 hours)
The purpose of this course is to examine research methodology and applied research. Emphasis will be given to the review and evaluation of educational research for school leaders. Each student will be required to design, implement, and evaluate an action research project.
EDEL 697. School, Community, & Society (3 hours)
This course is designed to examine current key issues in today's schools. Special emphasis will be given to developing school leaders who are community collaborators, net-workers, and problem solvers.

EDEL 703. The Principalship (3 hours)
This course is designed for those candidates preparing for a career in building-level school leadership. This course is a general introduction to the principalship and contains material that is both theoretical and practical in nature. Candidates receive direction in developing the knowledge, skills and attitudes that foster instructional leadership within the school. The concepts of instructional leadership, management, human relations, and personnel development are detailed and internship assignments are integrated into course requirements.

EDEL 704. The Superintendency (3 hours)
This course examines the role and responsibilities of the school superintendent as chief executive officer of a complex organization. The course focuses on the leadership roles of the superintendent and central office personnel in working with the board of education, building principals, school staff members, citizens of the community and political and educational leaders. Attention is given to the role of the system-level leaders in instruction and curriculum, personnel administration, finance and business management, and buildings and grounds. Internship experiences are integrated in course requirements.

EDEL 800. Advanced Leadership Theory (3 hours)
This course provides a study of advanced leadership theories, group dynamics, and human relationships theory used in educational leadership. Students will acquire skills in facilitation techniques including decision-making, problem-solving, conflict management, and evaluation strategies.

EDEL 801. Organizational Theory and Behavior (3 hours)
This course is designed to expose candidates to the fundamental principles with which to understand human behavior inside educational organizations. The course examines various theories developed in an attempt to explain and predict faculty, administrator, staff and student behavior in an organizational context.

EDEL 802. Program Assessment, Evaluation and Design (3 hours)
The purpose of the course is to prepare candidates with the necessary knowledge, understanding, and skills to design and implement evaluations of programs. The primary objective of program evaluation is to provide feedback to decision-makers and other stakeholders and to determine whether a particular program is achieving desired outcomes.

EDEL 810. Seminar in Research Methodology (3 hours)
This course provides an introduction to problem identification and solving in educational leadership leading to the development of research problems and hypotheses for conducting systematic inquiries in the field, providing an overview of approaches, questions and problems posed in each of the major research paradigms. The emphasis will be on developing an understanding and appreciation of the different aspects of these research paradigms and the appropriate uses of each for inquiry in support of improved understanding of and practice in education. Prerequisite: Master's level research course as determined by program advisor.

EDEL 811. Quantitative Research Methodology (3 hours)
In this course, students will explore the assumptions and methods of the quantitative approach in educational research. First, students will review the major concepts in the research process. Next, students will examine procedures for collection and analysis of quantitative data in education. The focus will be on enabling students to know when to apply
different statistical procedures to answer research questions of interest. Students will explore inferential statistics, and use hypothetical data to conduct several inferential tests such as the t test, correlation coefficients, Chi Square, and ANOVA. Prerequisite: Seminar in Research Methodology

**EDEL 812. Qualitative Research Methodology** (3 hours)
The purpose of this course is to introduce qualitative research design and methods, particularly as they apply to the field of education. Through its readings and assignments, this course will equip you with the knowledge, skills, and ethics necessary to be professional and socially just qualitative researchers. One of the tenets of qualitative research is awareness of one's own biases. We will address diversity issues (gender, race, religion, ability, sexual orientation, socioeconomic status, etc.) throughout the course as they relate to those biases and to ethical research. Prerequisite: Seminar in Research Methodology and Quantitative Research Methodology

**EDEL 813. Advanced Inferential Statistics** (3 hours)
In this class, candidates will continue to develop their skills in using and interpreting inferential statistics. First, students will explore multiple regression analyses and interactions in multiple regression. Next students will examine a variety of multivariate analyses, including cluster and factor analyses, discriminant analysis, MANOVA, and an introduction to causal modeling. Prerequisite: Seminar in Research Methodology, Quantitative Research Methodology, and Qualitative Research Methodology

**EDEL 820. Literature Review of Current Issues in Educational Leadership** (3 hours)
This course is a survey of contemporary issues in the field of educational leadership. Candidates will research selected topics in order to gain a broad perspective of the field of leadership as it applies to education generally. Students will evaluate relevant data and draw conclusions based upon the data and class discussions.

**EDEL 821. Policies, Politics & Cultural Aspects of School Leadership** (3 hours)
The politics of education as the set of interactions that influence and shape the authoritative allocation of values in the society and its educational organizations will be addressed. This course focuses on understanding the social, cultural, and political conditions that are shaping educational reforms/decisions.

**EDEL 822. Collaborative Strategies: Strengthening Internal and External Relationships** (3 hours)
This course will address the identification and utilization of community resources and the creation of partnerships, community linkages, and collaborative efforts to provide for the educational, cultural, health, and other needs of students and citizens in a community. A study of the philosophy, principles, practices, and agencies and organizations involved in or influencing school community programs and initiatives. Special attention is focused on the role of school and community leaders in planning and implementing system-wide and building-level communications and involvement networks.

**EDEL 823. Human Motivation Leadership** (3 hours)
This course will examine the ethical dilemmas of leadership, the foundations and context of moral choice, the moral implication of decision making within educational organizations and the impact upon staff morale, personal integrity and citizens. The course will make visible the ethical challenges and decisions criteria facing leaders and to explore the leadership role in sharing the organization’s ethical culture. An emphasis will be made on critical thinking, normative decision making, and the role of values in educational leadership.
EDEL 824. Legal Research and Analysis (3 hours)
This course will focus on the legal aspects of operating a school system. Topics for study will include, but not be limited to, federalism and the relative balance of state and federal responsibilities for public schooling, constitutional rights of students, teachers, and other system employees, state and federal statutory and common law requirements for public and private schooling, and local school board policy as a source of law for educators.

EDEL 825. Cognition and Learning in Curriculum and Instruction (3 hours)
This course is an analysis of curriculum and instructional models/theories, classroom/system applications, current issues/trends and their impact on educational leadership practices.

EDEL 830. The Ethics of Leadership (3 hours)
This course will examine the ethical dilemmas of leadership, the foundations and context of moral choice, the moral implication of decision making within educational organizations and the impact upon staff morale, personal integrity and citizens. The course will make visible the ethical challenges and decisions criteria facing leaders and to explore the leadership role in sharing the organization's ethical culture. An emphasis will be made on critical thinking, normative decision making, and the role of values in educational leadership.

EDEL 831. Effective Human Resources Practices (3 hours)
This course provides an overview of the statutes that regulate human resources practices. The focus will be on the employment process to include job descriptions, advertising, recruiting, interviewing, selection, hiring, orientation, mentoring and retention of quality employees. In addition, compensation studies, salary schedules and benefit packages will be reviewed. A thorough knowledge of the evaluation process to include professional development plans and due process, as required by law, will be presented.

EDEL 832. School Finance and Budgeting (3 hours)
This course provides an in-depth study of school district finance and budgeting. The focus will include funding formulas, state allotment sheets, millage rates, bond issues and special taxes as they relate to school systems. The emphasis will be on creating a school district annual budget that supports the system's mission and goals.

EDEL 833. Facilitating Professional Learning and Development (3 hours)
Analysis and application of techniques used in leading professional development for the improvement of instruction. Emphasis will be given to needs assessments, focus groups, ongoing support, formative and summative evaluation, and budgeting.

EDEL 840. Literature Review of Current & Historical Issues in Higher Education (3 hours)
This course presents a broad exploration of contemporary issues influencing higher education today against the backdrop of a brief review of the history of higher education. Candidates will examine issues confronting the academy in today's global environment.

EDEL 841. Higher Education Student Affairs (3 hours)
This course examines the role of student affairs administrators in student success in higher education. Candidates will consider the role of student affairs through study of theories, research, and methods, and candidates will apply this theory to current practice. The following student affairs' topics will be explored: administrative environment; organization and management issues; essential skills and competencies of student affairs leaders; diversity; commitment to professional education; and the relationship between student and academic affairs.
EDEL 842. Higher Education Financial Affairs (3 hours)
In this course candidates will develop knowledge of fundamentals of financial support and
operation of higher education institutions, including local, state and federal responsibilities
and regulations regarding planning, programming, budgeting, accounting and auditing of
institutional funds. This course will provide the knowledge about the issues surrounding
resource acquisition and allocation to make informed decisions.

EDEL 843. Higher Education Academic Affairs (3 hours)
The purpose of this course is to emphasize academic leadership concepts that relate to
organizational structure, staff productivity, and leadership in the change process with
respect to curriculum, instruction, faculty development, and faculty personnel policies in
higher education. Special attention will be given to the teaching-learning environments and
the factors that shape them.

EDEL 844. Higher Education Administrative Affairs (3 hours)
This course involves an exploration of the functional areas/skills that contribute to the effec-
tive administration of higher education institutions. Emphasis will be placed on planning,
leadership, personnel administration, enrollment management, and facility management.
Current topics affecting college and university operations will be investigated.

EDEL 845. Higher Education Law (3 hours)
This course will provide candidates with opportunities to study legal aspects of higher edu-
cation. The candidates will be able to understand the current law through regulations and
court cases; to become acquainted with appropriate legal resources and reference materi-
als; and to become familiar with significant court decisions affecting higher education.

EDEL 846. Policy and Politics in Higher Education (3 hours)
This course is designed to provide frameworks and approaches to the policy and politics of
higher education. Policy making, policy development and policy implementation will be con-
sidered. The course will focus on, but not limited to, the governance structure and policy-
making process in American higher education, current legislative developments, state polit-
ical agenda, and the role of educating an increasingly diverse student population.

EDEL 850. Internship in Educational Leadership (3 hours)
The internship course is designed as a culminating experience to coursework taken as a
part of the doctoral program in educational leadership. Candidates will complete a sus-
tained internship (minimum of 80 clock hours) in an educational setting under the guidance
of an identified mentor.

EDEL 897. Independent Study and Research (3 hours)
Not to be counted as credit toward a degree. Students actively working on a dissertation,
consulting with the major professor, or using other resources of the university may enroll in
this course. Students who are not in enrolled in at least 3 hours of dissertation but who are
actively working on a dissertation, consulting with the major professor, or using other
resources of the university must enroll in this course each semester until the dissertation is
completed.

EDEL 898. Dissertation I (3 hours)
EDEL 899. Dissertation II (3 hours)
Townsend School of Music

Graduate Studies
John H. Dickson, D.M.A., Dean
John E. Simons, D.M.A., Director of Graduate Studies
Douglas M. Hill, D.M.A., Director of Undergraduate Studies

Graduate Faculty Members
John H. Dickson, Douglas M. Hill, Robert W. Parris, Martha Malone, John N. Roberts, and Stanley L. Roberts, Professors
Ian Altman, Montgomery C. Cole, Carol Goff, Amy Schwartz-Moretti, and John E. Simons, Associate Professors
Richard Kosowski and Marcus Reddick, Assistant Professors
Adrian Gnam, Distinguished Artist in Residence

Graduate Faculty Associate Members
Roger Allen, Charles Anderson, Michael Andrew, Terry Cantwell, Lisa Lombardo, Robert McDuffie, Paul Murphy, Mike Pekarek, Nancy Rehberg, Christopher Rex, Marie Roberts, Jonathan Swygert, Kelly Via, and Colin Williams.

Mission Statement
The graduate studies area of Townsend School of Music prepares musical artists for professional careers in conducting, performance, scholarship, music education, and church music.

Accreditation
The Townsend School of Music is an institutional member of the National Association of Schools of Music (NASM). The McAfee School of Theology is an institutional member of the Association of Theological Schools (ATS).

Master of Music
The Townsend School of Music offers Master of Music degrees in conducting, performance and church music. In addition, Townsend School of Music collaboratively works with McAfee School of Theology to offer a Master of Divinity with a Concentration in Church Music.

Conducting (Choral or Instrumental)
The Master of Music in Conducting (MMC), offered by Townsend School of Music, allows exceptional musicians, who have completed an undergraduate degree in music, to pursue intensive graduate studies in conducting. Within the degree, the student will choose a specialty area in either Choral or Instrumental conducting. In addition, instrumental conductors choose a wind ensemble or orchestral area of emphasis. The area of emphasis reflects the type of private conducting study (wind ensemble or orchestral). All MMC students will have the opportunity for added study in choral, orchestral, or wind ensemble conducting.

NOTE: MMC students have the option of adding the designation "with an emphasis in Church Music" by selecting six elective credit hours in church music.
Performance (Vocal, Piano, Organ, Instrumental)

The Master of Music in Performance (MMP), offered by Townsend School of Music, allows exceptional musicians, who have completed an undergraduate degree in music, to pursue intensive graduate studies in performance. Concentrations include: Vocal, Organ, Piano and Instrumental Performance.  
Note: NOTE: MMP students have the option of adding the designation “with emphasis in Church Music” by selecting six elective credit hours in church music.

Church Music (Conducting, Vocal, Piano, Organ, Instrumental)

The Master of Music in Church Music (MMCM), offered by Townsend School of Music, is intended to allow talented persons, who have completed and undergraduate degree in music, to enter an intense period of graduate, professional study that will prepare them for the practice of church music ministry. Concentrations include: conducting, vocal performance, organ, piano, and instrumental performance.

Master of Divinity with a Concentration in Church Music

The Master of Divinity with a Concentration in Church Music, offered by the McAfee School of Theology in conjunction with the Townsend School of Music, is for individuals who will work with musicians and ministers of music in their ministerial calling. The program places an emphasis on how to incorporate music into the worship service and congregational life of a church. The requirements and specific catalog information for this degree are located in catalog of the McAfee School of Theology.

Admission to Graduate Study

Admission to the Graduate Studies Area of Townsend School of Music is conducted by formal application and an audition in a performance area (voice, keyboard, instrumental, or conducting). The entire application and performance audition will be considered when making admissions decisions, and each piece of the process is important. In addition, applicants must submit an application fee, official GRE General Test scores (TOEFL for International Students), official transcripts, and three letters of recommendation. The Graduate Studies Area of Townsend School of Music requires that all applicants have either a bachelor's degree in music or music education from an accredited institution in the United States or proof of equivalent training at a foreign institution of higher learning. Applicants are expected to have a record of undergraduate study and experience predictive of success in graduate study.

International Applicants

Qualified applicants from countries other than the United States of America will be eligible for admission into the program. International students follow the same admissions process as students from the United States, but must submit proof of English literacy skills by taking the TOEFL. A minimum score of 550 on the paper-based, 213 on the computer-based, or 80 on the internet-based TOEFL is required. In addition, a score of 22 on the speaking section of the test is suggested. International applicants should be particularly mindful of the transcript requirement since transcripts from non-U.S. institutions frequently lack proof of conferred degree information. Non-English transcripts need to be translated by an official translating agency. If the applicant is admitted before receiving a degree and final transcripts, the applicant is required to present a final transcript documenting proof of degree to the Graduate School by the first day of class or a hold will be placed preventing the applicant from registering.
Diagnostic Examinations

At the time of the audition, the applicant will be required to take two diagnostic examinations: a theory examination and a music history examination. The results of both examinations will be factors to be considered for admission to the program. The results of the tests can be used for advising and may require some type of remediation. Study guides for the examinations are available on the graduate studies web page.

Residency Requirement

To qualify for the Master of Music degree programs, a graduate student must successfully complete at least 80% of the graduate coursework in residence and achieve a grade point average of at least 3.0. Successful completion of a graduate course requires a grade of C or higher.

Transfer Credit

Townsend School of Music will accept transfer credit from other institutions towards the Master of Music degree. Transfer of credit occurs after enrollment and must be approved by the Director of Graduate Studies in consultation with appropriate faculty members and Dean. Credit for graduate work transferred from other universities shall be allowed subject to the following provisions:

1. 25% of the required Mercer coursework (excluding internships, practica, and recitals) may be petitioned for transfer,
2. Coursework must be from an NASM accredited university,
3. Coursework must have been taken no more than 5 years prior to entrance in the graduate program.

Exceptions to this policy may be appealed to the Dean of Townsend School of Music.

Academic Warning, Probation, and Suspension

The first semester that a graduate student's semester and/or cumulative grade point average is below 3.0, the student will receive an academic warning. The second semester in which a graduate student is enrolled and his/her semester and/or cumulative grade point average is below 3.0, the student will be placed on academic probation. The graduate program director may specify academic conditions with which a graduate student on academic probation must comply to be able to register, such as courses to be taken, course-load limits, attainment of a specific semester grade-point-average, etc. A graduate student on academic probation who fails to meet conditions set by the graduate program director may be placed on academic suspension and barred from registering for classes for one or more semesters. A student who falls below six hours in any semester, is on academic probation, or does not have a 3.0 cumulative grade point average may lose his/her graduate assistantship or fellowship. The student may reapply to the graduate director the following semester for possible re-instatement of the assistantship or fellowship.

Readmission

A graduate student who withdraws from the University or who is suspended from graduate study must make a written request for readmission, addressed to the graduate program director.
Exit Requirements

All graduate degrees in music require the successful completion of course work, a graduate recital in the student's applied area of concentration, and a comprehensive oral examination. The applied recital is coordinated by the student's applied teacher, and evaluated by a three person graduate faculty panel. The comprehensive oral examination is coordinated by the director of graduate studies and evaluated by a three person faculty committee.

Curriculum for the Master of Music in Conducting (Choral)

Major Area

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 640</td>
<td>Graduate Choral Conducting and Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUS 642</td>
<td>Applied Conducting</td>
<td>6</td>
</tr>
<tr>
<td>MUS 595</td>
<td>Graduate Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>MUS 633</td>
<td>Survey of Choral Literature I (Early-Baroque)</td>
<td>2</td>
</tr>
<tr>
<td>MUS 634</td>
<td>Survey of Choral Literature II (1750-Present)</td>
<td>2</td>
</tr>
<tr>
<td>MUS 575</td>
<td>Graduate Recital</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Major Area</strong></td>
<td><strong>14 credits</strong></td>
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Other Studies in Music

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 656</td>
<td>Analytical Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>MUS 605</td>
<td>Introduction to Graduate Studies in Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 620</td>
<td>Historical Study of Musical Styles and Literature (Rotating Topics: Renaissance, Baroque, Classical, Romantic, Twentieth Century and American Music)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 650 or</td>
<td>Composition/Arranging</td>
<td>2</td>
</tr>
<tr>
<td>MUS 651</td>
<td>Orchestration</td>
<td>2</td>
</tr>
<tr>
<td>MUS 638</td>
<td>Vocal Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Other Studies in Music</strong></td>
<td><strong>13 credits</strong></td>
<td></td>
</tr>
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</table>

Elective Studies in Supportive Areas

6 credits from among the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 560</td>
<td>Applied Voice</td>
<td>2</td>
</tr>
<tr>
<td>MUS 620</td>
<td>Historical Study of Musical Styles and Literature (Rotating Topics: Renaissance, Baroque, Classical, Romantic, Twentieth Century and American Music)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 621</td>
<td>Service Playing</td>
<td>2</td>
</tr>
<tr>
<td>*MUS 631</td>
<td>Church Music Methods &amp; Technology</td>
<td>3</td>
</tr>
<tr>
<td>*MUS 632</td>
<td>Hymnology and Church Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 637/639/636</td>
<td>Organ Skills (2 semesters), Piano Pedagogy (2 Semesters) Pedagogy of Orchestral Instrument</td>
<td>2</td>
</tr>
<tr>
<td>MUS 641</td>
<td>Graduate Instrumental Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 642</td>
<td>Applied Conducting (not in area of specialization)</td>
<td>2</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>MUS 641</td>
<td>Graduate Instrumental Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 642</td>
<td>Applied Conducting</td>
<td>6</td>
</tr>
<tr>
<td>MUS 645</td>
<td>Survey of Orchestral Literature</td>
<td>2</td>
</tr>
<tr>
<td>MUS 646</td>
<td>Survey of Wind Ensemble Literature</td>
<td>2</td>
</tr>
<tr>
<td>MUS 595</td>
<td>Graduate Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>MUS 575</td>
<td>Graduate Conducting Recital</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Major Area</strong></td>
<td><strong>14</strong></td>
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### Other Studies in Music

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 656</td>
<td>Analytical Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>MUS 605</td>
<td>Introduction to Graduate Studies in Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 620</td>
<td>Historical Study of Musical Styles and Literature (Rotating Topics: Renaissance, Baroque, Classical, Romantic, Twentieth Century and American Music)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 650 or MUS 651</td>
<td>Composition/Arranging or Orchestration</td>
<td>2</td>
</tr>
<tr>
<td>MUS 561, 562, 563</td>
<td>Applied Study: Major Performance Instrument</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total Other Studies in Music</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>

* To qualify for the designation with an emphasis in Church Music, students must complete six hours of elective study in church music. The church music courses are denoted by the asterisk (*).
### Elective Studies in Supportive Areas

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 620</td>
<td>Historical Study of Musical Styles and Literature (Rotating Topics: Renaissance, Baroque, Classical, Romantic, Twentieth Century and American Music)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 621</td>
<td>Service Playing</td>
<td>2</td>
</tr>
<tr>
<td>*MUS 631</td>
<td>Church Music Methods and Technology</td>
<td>3</td>
</tr>
<tr>
<td>*MUS 632</td>
<td>Hymnology &amp; Church Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 633</td>
<td>Survey of Choral Literature: Renaissance &amp; Baroque</td>
<td>2</td>
</tr>
<tr>
<td>MUS 634</td>
<td>Survey of Choral Literature: Mid 18th-century to Present</td>
<td>2</td>
</tr>
<tr>
<td>MUS 636</td>
<td>Pedagogy of an Orchestral Instrument</td>
<td>2</td>
</tr>
<tr>
<td>MUS 638</td>
<td>Vocal Pedagogy</td>
<td>2</td>
</tr>
<tr>
<td>MUS 640</td>
<td>Graduate Choral Conducting Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUS 642</td>
<td>Applied Conducting (not in area of specialization)</td>
<td>2</td>
</tr>
<tr>
<td>MUS 650 or</td>
<td>Composition/Arranging</td>
<td>2</td>
</tr>
<tr>
<td>MUS 651</td>
<td>Orchestration</td>
<td></td>
</tr>
<tr>
<td>*MUS 652</td>
<td>Foundations of Christian Worship</td>
<td>3</td>
</tr>
<tr>
<td>MUS 657</td>
<td>Analytical Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MUS 658</td>
<td>Counterpoint in the Style of the 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>MUS 659</td>
<td>Counterpoint in the Style of the 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>MUS 680</td>
<td>Special Topics in Music</td>
<td>1-3</td>
</tr>
</tbody>
</table>

**Total Electives** 6 credits

**Total Overall** 33 credits

*To qualify for the designation “with an emphasis in Church Music,” students must complete six hours of elective study in church music. The church music courses are denoted by the asterisk (*).*

### Curriculum for the Master of Music in Performance

#### Major Area

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 565/566/567/574/568</td>
<td>Applied Voice/Piano/Organ/Harpsichord/or Instrumental</td>
<td>8</td>
</tr>
<tr>
<td>MUS 595</td>
<td>Graduate Ensemble (2 semesters)*</td>
<td>2</td>
</tr>
<tr>
<td>*MUS 640</td>
<td>Organ majors may substitute MUS 640</td>
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</tr>
<tr>
<td>MUS 685</td>
<td>Seminar in the Major (2 semesters)</td>
<td>2</td>
</tr>
<tr>
<td>MUS 685</td>
<td>Graduate Recital</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Major Area** 12 credits

### Other Studies in Music

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 656</td>
<td>Analytical Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>MUS 605</td>
<td>Introduction to Graduate Studies in Music</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>MUS 620</td>
<td>Historical Study of Musical Styles and Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 637/639/638/636</td>
<td>Organ Skills (2 semesters), Piano Pedagogy (2 Semesters), Vocal Pedagogy, Pedagogy of Orchestral Instrument</td>
<td>2</td>
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</tbody>
</table>

**Total Other Studies in Music** 11 credits

### Elective Studies in Supportive Areas

10 credits from among the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 620</td>
<td>Historical Study of Musical Styles and Literature</td>
<td>3</td>
</tr>
</tbody>
</table>

*This is in addition to the required course and cannot be the same topic*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 621</td>
<td>Service Playing</td>
<td>2</td>
</tr>
<tr>
<td>*MUS 631</td>
<td>Church Music Methods &amp; Technology</td>
<td>3</td>
</tr>
<tr>
<td>* MUS 632</td>
<td>Hymnology and Church Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 633</td>
<td>Survey of Choral Literature Renaissance &amp; Baroque</td>
<td>2</td>
</tr>
<tr>
<td>MUS 634</td>
<td>Survey of Choral Literature Mid-18th Century to the Present</td>
<td>2</td>
</tr>
<tr>
<td>MUS 640</td>
<td>Graduate Choral Conducting and Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUS 641</td>
<td>Instrumental Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 642</td>
<td>Applied Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 645</td>
<td>Survey of Orchestral Literature</td>
<td>2</td>
</tr>
<tr>
<td>MUS 646</td>
<td>Survey of Wind Ensemble Literature</td>
<td>2</td>
</tr>
<tr>
<td>MUS 650</td>
<td>Composition/Arrangement</td>
<td>2</td>
</tr>
<tr>
<td>MUS 651</td>
<td>Orchestration</td>
<td>2</td>
</tr>
<tr>
<td>* MUS 652</td>
<td>Foundations of Christian Worship</td>
<td>3</td>
</tr>
<tr>
<td>MUS 655</td>
<td>Diction (3 semesters)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 657</td>
<td>Analytical Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MUS 658</td>
<td>Counterpoint in the Style of the 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>MUS 659</td>
<td>Counterpoint in the Style of the 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>MUS 680</td>
<td>Special Topics in Music</td>
<td>3</td>
</tr>
<tr>
<td>* MUS 701/702</td>
<td>Spiritual Formation for Ministry I or II</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Electives** 10 credits

**Total Overall** 33 credits

*To qualify for the designation with an emphasis in Church Music, students must complete six hours of elective study in church music. The church music courses are denoted by the asterisk (*).*

Curriculum for the Master of Divinity with a Concentration in Church Music is located in the catalog of the McAfee School of Theology.
Curriculum for the Master of Music in Church Music

### Major Area

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>MUS 652</td>
<td>Foundations of Christian Worship</td>
<td>3</td>
</tr>
<tr>
<td>MUS 632</td>
<td>Hymnology and Church Music Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 631</td>
<td>Church Music Methods &amp; Technology</td>
<td>3</td>
</tr>
<tr>
<td>MUS 601</td>
<td>Supervised Music Ministry</td>
<td>1</td>
</tr>
<tr>
<td>MUS 701/702</td>
<td>Spiritual Formation for Ministry I or II</td>
<td>2</td>
</tr>
<tr>
<td>MUS 575</td>
<td>Graduate Recital</td>
<td>0</td>
</tr>
</tbody>
</table>

**Total Major Area** 12 credits

### Other Studies in Music

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>MUS 565/566/567/574/568</td>
<td>Applied Voice/Piano/Organ/642 Harpsichord/Instrumental/</td>
<td>4</td>
</tr>
<tr>
<td>MUS 595</td>
<td>Graduate Ensemble</td>
<td>2</td>
</tr>
<tr>
<td>MUS 605</td>
<td>Introduction to Graduate Studies in Music</td>
<td>3</td>
</tr>
<tr>
<td>MUS 620</td>
<td>Historical Study of Musical Styles and Literature</td>
<td>3</td>
</tr>
<tr>
<td>MUS 637/639/638/636</td>
<td>Organ Skills (2 semesters), Piano Pedagogy (2 Semesters)</td>
<td>2</td>
</tr>
<tr>
<td>MUS 640</td>
<td>Graduate Choral Conducting and Techniques</td>
<td>2</td>
</tr>
<tr>
<td>MUS 656</td>
<td>Analytical Techniques I</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Other Studies in Music** 19 credits

### Elective Studies in Supportive Areas

4 credits from among the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 560/561/562/569/563</td>
<td>Applied Voice/Piano/Organ/Harpsichord/Instrumental/</td>
<td>2</td>
</tr>
<tr>
<td>MUS 620</td>
<td>Historical Study of Music Styles and Literature**</td>
<td>3</td>
</tr>
</tbody>
</table>

*not to be in the area of emphasis

**this is in addition to the required course and cannot be the same type**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 621</td>
<td>Service Playing</td>
<td>2</td>
</tr>
<tr>
<td>MUS 633</td>
<td>Survey of Choral Literature: Renaissance &amp; Baroque</td>
<td>2</td>
</tr>
<tr>
<td>MUS 634</td>
<td>Survey of Choral Literature: Mid-18th Century to Present</td>
<td>2</td>
</tr>
<tr>
<td>MUS 642</td>
<td>Applied Conducting</td>
<td>2</td>
</tr>
<tr>
<td>MUS 650</td>
<td>Composition/Arrangement</td>
<td>2</td>
</tr>
<tr>
<td>MUS 651</td>
<td>Orchestration</td>
<td>2</td>
</tr>
<tr>
<td>MUS 655</td>
<td>Diction (3 semesters)</td>
<td>3</td>
</tr>
<tr>
<td>MUS 657</td>
<td>Analytical Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MUS 658</td>
<td>Counterpoint in the Style of the 16th Century</td>
<td>3</td>
</tr>
<tr>
<td>MUS 659</td>
<td>Counterpoint in the Style of the 18th Century</td>
<td>3</td>
</tr>
<tr>
<td>MUS 680</td>
<td>Special Topics in Music</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Electives** 4 credits

**Total Overall** 35 credits
GRADUATE MUSIC COURSES (MUS)

Applied Music Courses
One-hour private lesson each week with an expectation of 2 hours of rehearsal per day is worth 2 credit hours. One-hour private lesson each week with an expectation of 4 hours of rehearsal per day is worth 4 credit hours. Applied music courses may be repeated for credit.

MUS 560 (2 hours credit), MUS 565 (4 hours credit). Voice
MUS 561 (2 hours credit), MUS 566 (4 hours credit). Piano
MUS 562 (2 hours credit), MUS 567 (4 hours credit). Organ
MUS 569 (2 hours credit), MUS 574 (4 hours credit). Harpsichord
MUS 563 (2 hours credit), MUS 568 (4 hours credit). Instrumental (non-keyboard)

A. Flute/Piccolo    N. Tuba
B. Oboe            R. Percussion
C. Bassoon         T. Harp
D. Clarinet        V. Guitar
E. Saxophone       W. Violin
J. Cornet/Trumpet  X. Viola
K. Horn            Y. Violin/Cello
L. Trombone        Z. Double-bass
M. Euphonium

MUS 575. Graduate Recital (0 hour)
Graduate students are required to register for Graduate Recital during the semester the performer gives a faculty juried graduate recital counting toward the fulfilment of the graduate recital requirement. This course may be repeated only if the content of the recital is completely different from a previous MUS 575 recital.

MUS 595. Graduate Ensemble (1 hour)
Participation in an ensemble that is appropriate for a student's performance discipline. May include choral and/or instrumental ensembles, chamber music, and opera workshop.

MUS 601. Supervised Music Ministry Experience (1 hour)
Designed to meet the needs of students preparing for the music ministry. Students will be assigned to work with appropriate staff members of a local church in a church music leadership position. Students are required to complete one semester of supervised ministry experience, which will be taken after the student's first semester of study.

MUS 605. Introduction to Graduate Studies in Music (3 hours)
An introduction to music research tools, materials, and techniques. The course will provide a study of bibliographical materials and methods of research. The focus of the course will include major references and indexes, databases, and Internet research.
MUS 620. Historical Study of Musical Styles and Literature (3 hours)
A series of graduate-level seminar courses in music history. Topics will be announced in advance, will focus primarily on periods of music history, and drawn from the following: Music in the Ancient World and Renaissance, Music in the Baroque Era, Classicism in Music, Romanticism in Music, 20th Century Music, American Music, and other specialized topics related to music history. This course may be repeated for credit as long as the topic is different.

MUS 621. Service Playing (2 hours)
A study of the special skills required of the organist and organist-director in effective and imaginative worship. Particular emphasis will be placed upon hymn playing, strict and free improvisation, choral accompanying, and the use of a repertoire appropriate to church settings.

MUS 631. Church Music Methods & Technology (3 hours)
A study of choral and instrumental repertoire for use in churches. Discussion of topics pertaining to the administration of church music programs, church staff relationships, youth and children’s choir techniques, and technology related to work in a local church. The class's format will include lectures, reading sessions, and class projects.

MUS 632. Hymnology & Church Music Literature (3 hours)
This course is designed to provide a survey of the historical development of congregational song in the Western church experience. Areas covered will include the early Christian era and the development of hymnody, the Reformation and Counter-Reformation, developments resulting from the evolution of various Protestant groups, text-music relationships, and trends of church music into the 20th century.

MUS 633. Survey of Choral Literature: Renaissance & Baroque (2 hours)
A survey of choral literature from 1450-1750. Emphasis will be placed on acquiring a broader knowledge of the choral literature from these periods, and gaining a better understanding of musical styles and performance practice unique to each.

MUS 634. Survey of Choral Literature: Mid 18th-century to Present (2 hours)
A survey of choral literature from 1750-present. Emphasis will be placed on acquiring a broader knowledge of the choral literature from the Classical, Romantic, and 20th-century periods, and gaining a better understanding of musical style and performance practice unique to each.

MUS 636. Pedagogy of an Orchestral Instrument (2 hours)
This course focuses on development of pedagogical skills for a specific orchestral instrument. Included will be study of performance literature, teaching methods/strategies, and maintenance related to the selected orchestral instrument.

MUS 637A. Organ Skills I (1 hour)
This course focuses on development of pedagogical skills as they pertain to the organ. The class will address methods, materials, problems of manual and pedal technique, and registration.

MUS 637B. Organ Skills II (1 hour)
This course is a continuation of MUS 637A.
MUS 638. Vocal Pedagogy (2 hours)
This course is designed to develop a basic understanding of the physical and acoustical foundations of singing. On the basis of this understanding, the student will (1) improve his or her own singing and (2) become a better teacher of singing on the individual level and in a group context.

MUS 639A. Piano Pedagogy I (1 hour)
This course focuses on development of pedagogical skills for the piano. Included will be study of keyboard literature from the Robertsbridge Codex (1320) until the present and supervised teaching of piano lessons given by the graduate student.

MUS 639B. Piano Pedagogy II (1 hour)
This course is a continuation of MUS 639A.

MUS 640. Graduate Choral Conducting & Techniques (2 hours)
Advanced studies in conducting a choral ensemble. The course will focus on the elements of choral sound, the expressive elements of text, score study, and rehearsal techniques.

MUS 641. Graduate Instrumental Conducting & Techniques (2 hours)
Advanced studies in conducting instrumental ensembles. The course will focus on conducting gestures, musical expression, score study, rehearsal techniques, and leading orchestra and wind ensemble groups.

MUS 642. Applied Conducting: Choral, Orchestral, or Wind Ensemble (2 hours)
This course will include a weekly, one-hour private lesson. Additionally, students may be required to attend a one-hour studio class session each week. Permission of the conducting teacher is required. This course may be repeated for credit.

MUS 645. Survey of Orchestral Literature (2 hours)
Survey of major orchestral, opera and ballet works from the Baroque to the twenty-first centuries. In-depth study of selected works based on each student’s major field of interest. Projects will include an analysis of one work from each period of music. The analysis must include form, harmonic structure, performance considerations and rehearsal procedures. Score identification, listening and interpretation will be required for mid-term and final exams.

MUS 646. Survey of Wind Literature (2 hours)
A survey of wind ensemble literature from the Medieval Period to the present. Emphasis will be placed on acquiring a broad knowledge of wind ensemble literature from these periods, gaining a better understanding of musical styles, performance practice unique to each period, wind ensemble development and score study.

MUS 650. Composition/Arranging (2 hours)
This course will provide a student with the skills needed for original choral and/or instrumental composition in smaller forms. Further, the course will provide arranging techniques for various vocal/instrumental combinations.

MUS 651. Graduate Orchestration (2 hour)
Prerequisite: Completion of an undergraduate orchestration class equivalent to MUS 350 or permission of the instructor.
This course involves the study of orchestra and band scores, exercises in orchestrating this type of music for different choirs of instruments, scoring for full orchestra and symphonic band, and performance of class work (original scores, transcriptions or arrangements).
MUS 652. Foundations of Christian Worship (3 hours)
(Cross-listed as PRC 652)
This course will introduce students to the history, theology, and practice of Christian worship. Explorations will be made of the varieties of worship in Israel, in the early church, in the church throughout history, in historic Baptist traditions, and in various modern cultural contexts. Students will learn to think theologically about the character, the content, and the movement of worship in their own context and will learn practical skills for worship leadership.

MUS 655a. Graduate Vocal Diction I (1 hour)
Study and application of Italian and English lyric diction through the use of the International Phonetic Alphabet (IPA).

MUS 655b. Graduate Vocal Diction II (1 hour)
Study and application of German lyric diction through the use of the International Phonetic Alphabet (IPA).

MUS 655c. Graduate Vocal Diction III (1 hour)
Study and application of French lyric diction through the use of the International Phonetic Alphabet (IPA).

MUS 656. Analytical Techniques I (3 hours)
A survey and application of analytical approaches and techniques in music from tonal works of the late 18th and 19th centuries. Students will acquire an understanding of serial techniques that is sufficient to explain the pitch content and formal procedures in the repertoire of the Second Viennese School.

MUS 657. Analytical Techniques II (3 hours)
A survey and application of analytical approaches and techniques for music composed in the 20th and 21st centuries.

MUS 658. Counterpoint in the Style of the 16th Century (3 hours)
A study of compositional techniques that crystallized in the 16th century and reached a peak of development in the music of Palestrina, Lassus, and others. Students will examine polyphonic composition in textures ranging from two to eight voices, plus specialized types of canon and homophonic dance texture.

MUS 659. Counterpoint in the Style of the 18th Century (3 hours)
A study of tonal counterpoint in a style that crystallized in the first half of the 18th century and reached a peak of development in the music of J. S. Bach. A variety of genres will be explored, including invention, chaconne, chorale prelude, chorale fughetta, figuration variation, and fugue.

MUS 660. Special Topics in Music (Subtitle) (1-3 hours)
A study of some significant topic in music that is not otherwise covered in the Townsend School of Music course offerings. The class carries variable course credit (1 to 3 hours) dependent on the proposed course, and may be repeated with a different topic. Courses are created, approved and assigned course credit in the following manner:

The professor and student create a proposal for the special topics class using the Special Topics Form located in the music office.

The completed form is submitted to the Director of Graduate Studies.

The Director of Graduate Studies will submit the proposal to the Dean for review. If approved, the Director of Graduate studies will assign the credit hours of the special topics course and create the subtitle of the course.
MUS 685. Seminar in the Major (1 hour)
A broad examination of problems related to the major, with intense study of musical literature and interpretation. Specific requirements may differ according to students’ areas of applied study. The MMP degree requires two semesters of enrollment in this seminar resulting in an accumulation of two credit hours. This course may be repeated for credit.

MUS 701. Spiritual Formation for Ministry I (2 hours)
(Cross-listed as SPF 701)
This course emphasizes the skill of learning to ask the right questions in order to integrate personal, academic, and professional foundations around a center of spiritual maturity. Discussion of these issues will be pursued in a context of personal spiritual disciplines and community-building small groups.

MUS 702. Spiritual Formation for Ministry II (2 hours)
(Cross-listed as SPF 702)
This course focuses on the spiritual disciplines of the inward and the outward journey, with emphasis on aspects particular to Christian ministers and their roles as spiritual guides. The purpose of the course is to help students develop discernment and delight in the experience of the presence of God so that they may form and lead communities in doing and speaking the truth in love, furthering the heritage of Christian spirituality, and increasing in love, trust, and obedience to Christ.
Mercer University School of Medicine

The catalog for the School of Medicine is a separate publication. However, specific policies and procedures contained within the graduate section of the Macon Campus catalog will apply to all graduate programs, including the Master of Family Therapy, Master of Family Services, Master of Public Health, and Master of Science in Anesthesia.
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456 / MERCER UNIVERSITY
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Willis Borders Glover, Professor of History, Emeritus; B.A., Mississippi College, 1938; M.A., University of Virginia, 1939; Ph.D., Harvard University, 1951.


James Ostelle Harrison, Professor of Biology, Emeritus; A.B., Mercer University, 1949; M.S., University of Georgia, 1954; Ph.D., Cornell University, 1960.


Bobbie Bobo Hennecy, Associate Professor of English, Emerita; A.B., Mercer University, 1950; M.A., Emory University, 1962.

Ann Nickerson Hughes, Professor of Foreign Languages and Literatures, Emerita; A.B., Mercer University, 1950; M.A., Ph.D., University of Georgia, 1964, 1973.

Edwin Dargan Johnston, Roberts Professor of Christianity (Bible), Emeritus; A.B., Mercer University, 1941; Th.M., Th.D., Southern Baptist Theological Seminary, 1944; 1955; Ph.D., Victoria University of Manchester, 1950.

Lois Belle Lantz, Associate Professor of Music, Emerita; B.M., M.M., Indiana University, 1949, 1950.


Harold Lynn McManus, Roberts Professor of Christianity, Emeritus; B.A., Wake Forest College, 1941; Th.M., Southern Baptist Theological Seminary, 1944; S.T.M., Ph.D., Yale University, 1948; 1953.


Watson Mills, Professor of Christianity, Emeritus; B.A., University of Richmond,


**Leslie Hurst Peek,** Associate Professor of Mathematics, Emeritus; B.S., B.A., Carson-Newman College, 1959; M.M., University of Tennessee, 1963.

**Chandler Jones Pike,** Assistant Professor in Mathematics; B.A., Randolph-Macon Woman's College, 1969; M.S., Florida State University, 1971; Ph.D., University of Georgia, 1999.

**Wilfred Carlton Platt, Jr.** Professor of History, Emeritus; A.B., Furman University, 1958; B.D., Southern Baptist Theological Seminary, 1962; M.A., Ohio University, 1963; Ph.D., University of Georgia, 1966.

**Dan Ray Quisenberry,** Professor of Physics, Emeritus; A.B., University of Kentucky, 1961; M.T.S., College of William and Mary, 1966; Ph.D., World Open University, 1980.


**B. Ruth Bastin Slentz,** Associate Professor of Biology, Emeritus; A.B., Agnes Scott College, 1948; M.A., Emory University, 1957.


**Thomas Mac Trimble,** Professor of Philosophy, Emeritus; B.A., Louisiana College, 1957; B.D., New Orleans Baptist Theological Seminary, 1960.

**Denise Carla Volkoff,** Associate Professor of Foreign Languages and Literatures; B.A., Lycee Feneion, 1949; C.E.L.G., License es Lettes, Sorbonne, 1951.

**Lawrence Emory Whitaker,** Professor of Mathematics, Emeritus; B.S., Davidson College, 1964; M.A., Ph.D., University of Georgia, 1966, 1975.

**Mary Roberts Wilder,** Professor of English, Emerita; A.B., Mercer University, 1954; M.A., Peabody College, 1961; Ph.D., Florida State University, 1970.


**Alfred Eliot Youman,** Professor of Foreign Languages and Literatures, Emeritus; B.A., M.A., Ph.D., Yale University, 1951, 1956, 1959.
Full-Time:


James E. Black (2004) Assistant Professor of Journalism and Media Studies; B.A., Mercer University, 1987; M.S., University of Kansas, 1998.


Michael E. Bond (2004) Director of Recreational Sports and Wellness; Senior Lecturer and Director of Physical Education; B.S., Appalachian State University, 1996; M.S., University of Southern Mississippi, 1999.

Heather Bowman Cutway (2004) Assistant Professor of Biology; B.S., Slippery Rock University, 1998; Ph.D., Rutgers University, 2004.


Peter Craig Brown (1971) Professor of Philosophy and Senior Vice-Provost for Undergraduate Studies; B.A., Rice University, 1965; Ph.D., Emory University, 1993.

Kevin Michael Bucholtz (2005) Assistant Professor of Chemistry; B.S., Gannon University, 2000; M.S., Ph.D., University of Rochester, 2002, 2005.

Craig D. Byron (2006) Assistant Professor of Biology; B.A., Indiana University, 1997; M.A., Kent State University, 2001; Ph.D., Medical College of Georgia, 2005.


A. J. Cox (2008) Assistant Professor of Military Science; Captain, United States Army; B.A., University of Texas-Arlington, 1994.


THE REGISTER / 461


D. Scott Davis (1991) Senior Vice Provost for Research and Dean of Graduate Studies; Professor of Chemistry; B.S., Erskine College, 1985; Ph.D., Emory University, 1990.


Andrew D. Digh (1998) Associate Professor of Computer Science; B.A., University of North Carolina, 1992; M.S., Ph.D., University of Tennessee-Knoxville, 1994, 1997.

Gregory P. Domin (1999) Associate Professor of Political Science; B.A., Drew University, 1989; M.A., East Stroudsburg University, 1994; Ph.D., Northern Arizona University, 1998.

Kevin M. Drace (2008) Assistant Professor of Biology; B.S., Athens State University, 2002; Ph.D., University of Alabama at Birmingham, 2008.


John Marson Dunaway (1972) Professor of Foreign Languages and Literatures; Director of Mercer Commons; A.B., Emory University, 1967; A.M., Ph.D., Duke University, 1971, 1972.


Daniel P. Fischer (1988) Associate Vice President for Planning, Budgeting, and Institutional Research and Senior Lecturer; B.A., Maryknoll Seminary, 1965; M.A., University of Minnesota, 1969.


Tia Gafford-Williams (2000) Assistant Professor of English; B.A., University of Arkansas, 1983; M.S., University of Central Arkansas, 1995; Ph.D., Temple University, 2003.

Sarah E. Gardner (1996) Chair and Associate Professor of History; Director of Honors and Southern Studies; B.A., M.A., Miami University of Ohio, 1989, 1990; Ph.D., Emory University, 1996.


Thomas James Glennon (1971) Reg Murphy Professor of Leadership and Director of Program in Leadership and Community Service; B.A., Louisiana State University, 1967; M.S., Ph.D., University of Southern Mississippi, 1969, 1971.

Raleigh Kirby Godsey (1977) Chancellor and University Professor; B.A., Samford University, 1957; B.D., Th.D., New

David R. Goode (2008) Assistant Professor of Chemistry; B.S., Mercer University, 2002; Ph.D., University of Illinois at Urbana-Champaign, 2007.


J. Christopher Grant (2005) Associate Professor of Political Science; B.S., Birmingham-Southern College, 1990; M.A., Ph.D., University of Georgia, 1993, 2000.

Keegan D. Greenier (1996) Chair and Associate Professor of Psychology; B.S., Clarkson University, 1989; M.S., Ph.D., University of Georgia, 1992, 1995.

Robert John Hargrove (1975) Professor of Chemistry and Earth and Environmental Sciences; B.A., Ohio Wesleyan University, 1964; Ph.D., University of Utah, 1974; M.P.H. University of Alabama at Birmingham, 1987.

David Randall Harshbarger (1998) Associate Professor of Interdisciplinary Studies; Director of Senior Capstone; B.A., Dartmouth College, 1975; J.D., Columbia University, 1981.


John McDonnell Hintermaier (2005) Assistant Professor of History; A.B., Indiana Wesleyan University, 1995; M.A., Purdue University, 1997; Ph.D., Princeton University, 2004.

Eimad Houry (1991) Chair and Professor of Political Science; B.S., Florida A&M University, 1985; M.S., Ph.D., Florida State University, 1987, 1991.


Thomas Alan Huber (1984) Professor of Biology; Director of Great Books; B.S., Westminster College, 1976; M.S., Ph.D., Ohio State University, 1979, 1983.

Jeffrey Dean Hugdahl (1997) Chair and Associate Professor of Chemistry; B.S., University of Wisconsin-Parkside, 1983; Ph.D., University of Texas at Austin, 1990.

Samuel Lamar Hutto (1968) Associate Professor of Art; A.B., Auburn University, 1962; M.Ed., Florida Atlantic University, 1966.


John Barry Jenkins (1978) Vice Provost for Institutional Effectiveness and Assistant Professor of Psychology; B.A., University of Tennessee-Chattanooga, 1966; M.Ed., Northwestern State University, 1971; Ph.D., University of Southern Mississippi, 1978.


Lori A. Johnson (2005) Assistant Professor of Political Science; B.A., University of Georgia, 1986; J.D., University of Virginia, 1989; Ph.D., University of California, Berkeley, 2003.


G. Anthony Kemp (2008) Associate Director of Academic and Advising Services and Senior Lecturer; B.S., Georgia Southern University, 1991; M.Ed., University of South Carolina, 1993.

Adam M. Kiefer (2008) Assistant Professor of Chemistry; B.S., Allegheny College, 2002; Ph.D., University of Illinois at Urbana-Champaign, 2008


Achim Kopp (1997) Associate Professor of Foreign Languages and Literatures; Staatsexamen, Ph.D., University of Heidelberg, 1988, 1994.

Mary Crecink Kot (1991) Chair and Professor of Biology; B.S., Mississippi University for Women, 1977; M.Ed., Mississippi State University, 1982; M.S., Ph.D., University of Tennessee, Knoxville, 1984, 1989.

Sheng-Chiang Lee (2006) Assistant Professor of Physics; B.S., National Taiwan University, 1997; Ph.D., University of Maryland, 2004.


Lydia Masanet (1997) Associate Professor of Foreign Languages and Literatures; B.A., Universidad Central De Barcelona, 1984; M.A., University of
Colorado, 1990; Ph.D., University of Southern California, 1996.

Hope McLwain (1998) Associate Professor of Mathematics; B.S., Furman University, 1992; Ph.D., Rice University, 1998.

Craig T. McMahan (2005) University Minister and Dean of the Chapel; Assistant Professor of Christianity; B.A., Taylor University, 1978; M.Div., Ph.D., Southern Baptist Theological Seminary, 1981, 1987.

Marilyn Paul Mindingall (1987) Vice Provost, University Registrar, and Associate Professor of Psychology; B.A., Purdue University, 1975; M.S., Ph.D., The Pennsylvania State University, 1978, 1981.

Dale Edward Moore (1996) Associate Dean and Associate Professor of Chemistry; B.S., University of Cincinnati, 1992; Ph.D., University of Wisconsin, Madison, 1996.

Michael Keith Moore (1997) Associate Professor of Biology and Chair of Earth and Environmental Sciences; B.S., Humboldt State University, 1989; M.S., Louisiana State University, 1991; Ph.D., University of Louisiana, 1997.

Mary Alice Morgan (1997) Professor of English; Director of Women's and Gender Studies; Senior Vice-Provost for Service Learning; B.A., Duke University, 1977; M.A., Ph.D., University of Illinois at Urbana-Champaign, 1979, 1992.


Jose H. Pino (2005) Assistant Professor of Foreign Languages and Literatures; B.A., M.A., University of Caldas, 1993, 2000; M.A., University of Salamanca, 2002; Ph.D., University of Nebraska-Lincoln, 2005.


Marshall S. Rich (2003) Assistant Professor of Computer Science; A.S., Georgia Military College, 1989; B.B.A., Georgia College and State University,


Creighton J. Rosental (2004) Assistant Professor of Philosophy; B.S., Harvey Mudd College, 1991; M.A., Claremont Graduate University, 1993; Ph.D., University of Massachusetts, 2004.


Caryn Sanford Seney (1996) Associate Professor of Chemistry; B.S., Centre College, 1992; Ph.D., Wake Forest University, 1996.


Alan F. Smith (1995) Associate Professor of Biology; B.A., Millersville University, 1976; Ph.D., Rutgers University, 1989.


Charlotte S. Thomas (1995) Chair and Associate Professor of Philosophy; B.A., Mercer University, 1989; M.A., Ph.D., Emory University, 1993, 1996.


Douglas E. Thompson (2001) Assistant Professor of Interdisciplinary Studies; Director of FYS-X; B.A., Old Dominion University, 1989; M.Div., Southern Baptist Theological Seminary, 1993; Ph.D., University of Virginia, 2003.

Bridget Gayle Trodgen (2005) Assistant Professor of Chemistry; B.A., Transylvania University, 2000; Ph.D., University of Illinois, 2005.


J. Anna Weaver (1992) Chair and Associate Professor of Foreign
Languages and Literatures; B.A., Emory University, 1984; M.A., Middlebury College, 1985; Ph.D., University of Virginia, 1997.

Edward James Weintraut (1983) Associate Dean and Professor of Foreign Languages and Literatures; B.A., LaSalle College, 1974; M.A., Ph.D., Ohio State University, 1977, 1984.


Laurie White (1999) Professor of Computer Science; B.A., University of Virginia, 1979; M.S., Ph.D., University of Florida, 1985, 1990.


John Cushing Wright (1983) Professor of Psychology; B.A., Wittenberg University, 1970; M.A., Ph.D., Miami University, 1972, 1976.


Eugene W. Stetson School of Business and Economics—Faculty

Emeriti:


G. Russell Barber, Jr. Professor of Accounting and Economics, Emeritus; B.S.I.M., Georgia Institute of Technology, 1964; M.B.A., Georgia State University, 1963; Ph.D., University of Mississippi, 1990; C.P.A.


William Vernon Luckie, Jr. Assistant Professor of Accounting and Finance, Emeritus; B.S., University of Alabama, 1959; M.B.A., University of Mississippi, 1968; C.P.A.


Full-Time:


Walter Wade Austin (1990) Professor of Accounting; B.S., University of Tennessee, 1968; M.B.A., University of Utah, 1971; Ph.D., University of Georgia, 1989; C.P.A.

Jordan Matthew Blanke (1985) Professor of Computer Information and Law; B.S., M.S., SUNY at Stony Brook, 1976; J.D., Emory University School of Law, 1980.

Linda L. Brennan (1997) Associate Professor of Management; B.I.E., Georgia Institute of Technology; M.B.A., University of Chicago, 1988; Ph.D., Northwestern University, 1994; P.E., P.M.P.


D. David McIntyre (2004) Assistant Professor of Accounting; B.B.A., MAcc., University of Georgia, 1991, 1992; M.B.A., University of Central Florida, 1996; Ph.D., University of Kentucky, 2001; C.P.A., C.M.A.


John R. Miller (1975) Assistant Professor of Finance; B.I.E., Georgia Institute of Technology, 1965; M.B.A., Georgia State University, 1971; P.E.


Arthur L. Rutledge (1998) Associate Professor of Management Information Systems; B.I.E., Georgia Institute of Technology, 1967; M.S., St. Mary’s University, 1975; Ph.D., Georgia State University, 1986.

Steven John Simon (2001) Associate Professor of M.I.S.; B.B.A., University of Georgia, 1976; M.B.A., Georgia College and State University, 1987; Ph.D., University of South Carolina, 1994.


School of Engineering – Faculty

Emeritus:

Carroll B. Gambrell, P.E., Dean, Emeritus; LLB (Honorary), Southern California Institute of Law, 1998; M.B.A, West Coast University, 1997; B.A., Florida Southern College, 1975; B.S.E. Clemson University, 1949; M.S.E., University of Florida, 1952; Ph.D., Purdue University, 1958.

Thomas A. Cook, P.E., Professor, Emeritus; B.S., Massachusetts Institute of Technology, 1959; M.S., University of Arkansas, 1981; Ph.D., Oklahoma State University, 1989.

Robert I. Gray, Professor, Emeritus; B.Ch.E., M.Ch.E., Syracuse University, 1952, 1957; Ph.D., University of Tennessee, 1961.

Allen F. Grum, P.E., Professor, Emeritus; B.S., United States Military Academy, 1953; M.S., Massachusetts Institute of Technology, 1958; Ph.D., Stanford University, 1976.


Full-Time:


Kevin D. Barnett (1993) Associate Professor and Chair of Electrical and Computer Engineering; A.S., Morehead State, 1984; B.S., Morehead State, 1984, 1986; B.S., NC State University, 1986; M.S., University of Tennessee, 1988; Ph.D., Clemson University, 1993.


Monika Bubacz (2007) Assistant Professor of Mechanical Engineering; B.S./M.S., Proznan University of Technology, Poland, 1998; Ph.D., University of New Orleans, 2006.

Andre J. Butler (2000) Associate Professor of Mechanical and Environmental Engineering; B.S. University of Illinois, 1993; M.S. Carnegie Mellon University, 1995;
Ph.D., Georgia Institute of Technology, 2000.


**Aaron S. Collins, P.E.** (1993) Interim Senior Associate Dean, Program Director for Undergraduate BSE and IDM Degree Programs, Professor of Electrical and Computer Engineering, and Graduate Fellow; B.S.E., M.S., Ph.D., Clemson University, 1965, 1968, 1973.

**Marjorie T. Davis** (1989) Professor of Technical Communication; B.S., Troy State University, 1966; M.A., University of South Florida, 1969; Ph.D., University of Mississippi, 1974.


**Helen M. Grady** (1991) Director of BS ad MS Technical Communications Programs and Associate Professor of Technical Communication; B.S., Queens University, 1976; M.S., Queen’s College, 1979; Ed.D., Nova Southeastern University, 2000.


**Sinjae Hyun** (2003) Assistant Professor of Biomedical Engineering; B.S., M.S., Kyungpook National University 1986, 1988; Ph.D., North Carolina State University, 1998.


**Jeng-Nan Juang** (1987) Associate Professor of Electrical and Computer Engineering and Graduate Fellow; B.S.E., National College of Marine and Oceanic Technology, Taiwan, 1975; M.S.E., Ph.D., Tennessee Technological University, 1978, 1986.

**Behnam Kamali, P.E.** (1993) Professor of Electrical and Computer Engineering and Graduate Fellow; B.S.E.E., Tehran Polytechnic University, 1972; M.Eng., California State Polytechnic University; M.S.E.E., Oregon State University, 1981; Ph.D., Arizona State University, 1985.


**Paul E. MacNeil** (1990) Associate Professor of Software Engineering and Graduate Fellow; B.S., Rensselaer Polytechnic Institute, 1966; M.S., Ph.D., University of Arizona, 1968, 1971.


Ha Van Vo (2005) Assistant Professor of Biomedical Engineering; B.S., University of Florida, 1996; M.D., Hope Combined Medical College, 2002; D.P.M., Barry University, 2002; M.S., Ph.D., Florida Atlantic University, 2000, 2003.

Adjuncts:

Alicia D. Bailey (1997) Adjunct Assistant Professor of Technical Communication; B.A., Mercer University, 1993; M.A., University of Texas, 1997.

Douglas E. Moody (1990) Adjunct Associate Professor of Electrical and Computer Engineering; B.S.E., Mississippi State University, 1959; M.S.E., Ph.D., Arizona State University, 1964, 1971.

Douglas E. Ott, M.D. (1991) Adjunct Professor of Biomedical Engineering; B.S., Morehead State University, 1966; M.D., University of Louisville School of Medicine, 1970, 1970.
Tift College of Education – Faculty

Emeriti:


Cathryn Futral, Professor of English, Emerita; A.B., Tift College, 1949; M.R.E., New Orleans Baptist Theological Seminary, 1951; M.S., Ph.D., University of Southern Mississippi, 1962, 1980.


Olyn Suthern Sims, Jr., Professor of Developmental and Educational Psychology; A.B., Samford University, 1959; M.Div., Southern Baptist Theological Seminary, 1963; M.A., University of Kentucky, 1963; Ed.D., University of South Carolina, 1976.


Full-Time:


Sherah Betts Carr (2005) Assistant Professor of Education; B.S., Mansfield State College, 1972; M.S., Florida State University, 1975; Ph.D., Georgia State University, 1988.


Brent Daigle (2008) Assistant Professor of Education, B.A., University of Missouri-St. Louis, 2002; M.Ed., Northwestern State University, 2004; Ph.D., Louisiana State University, 2008.

Carl E. Davis (2006) Assistant Professor of Education; B.A., University of Southern


**Penny L. Elkins** (2000) *Associate Dean/Professor of Education and Fred L. Miles Chair of Educational Leadership*; B.A., M.Ed., Mercer University, 1990, 1992; Ed.S., Georgia College and State University, 1995; Ph.D., Georgia State University, 1998.

**Sammy L. Felton** (2008) *Assistant Professor of Education*; B.S.E., Delta State University, 1978; M.Ed., Memphis State University, 1982; Ph.D., University of Mississippi, 1995.


**John H. Finley, Jr.** (2007) *Assistant Professor of Education*; B.A., Miles College, 1964; M.S., Tuskegee University, 1967; Ph.D., Georgia State University, 1977.


**John Barry Jenkins** (1978) *Associate Provost for Institutional Effectiveness and Assistant Professor of Education*; B.A., University of Tennessee-Chattanooga, 1966; M.Ed., Northwestern State University, 1971; Ph.D., University of Southern Mississippi, 1978.

**Jude R. Johnson** (1999) *Associate Professor of Education*; B.S., Savannah State University, 1988; M.Ed., Mercer University, 1995; Ph.D., Emory University, 2002.


**Dana H. Lilly** (2001) *Professor of Education*; B.A., University of West


Karen H. Michael (2000) Associate Professor of Education; B.S., Georgia Southern University, 1991; M.S., North Georgia College, 1995; Ph.D., Purdue University, 2001.


debra walls rosenstein (2002) Associate Professor of Education; B.S., North Carolina State University, 1975; M.S., University of Tennessee, 1978; Ed.D., Virginia Polytechnic Institute, 1982.


Margie Wiggins Sweatman (2006) Assistant Professor of Education; B.S., Medical College of Georgia, 1983; M.Ed., Georgia State University, 1997; Ed.S., State University of West Georgia, 2002; Ed.D., Georgia Southern University, 2005.


Paige Tompkins (2007) Associate Professor of Education; B.S., Troy State University, 1984; B.S., Auburn University, 1987; M.Ed., Ph.D., Mississippi State University, 1993, 1995.

Victor Verdi (2004) Clinical Instructor of Educational Leadership; B.S., Presbyterian College, 1960; M.A.,
Western Carolina University, 1967; Ed.S., University of Georgia, 1976.

Clemmie B. Whatley (2008) Assistant Professor of Education; B.S., Clark College, 1971; M.S., Georgia Institute of Technology, 1973; Ed.S., State University of West Georgia, 1999; Ph.D., Emory University, 2003.

Stephen W. Wills (2007) Assistant Professor of Education; B.S., Auburn University, 1985; M.A., Georgia College and State University, 1994; Ph.D., University of Alabama, 2007.

Townsend School of Music - Faculty
Emeriti:

Lois Belle Lantz, Associate Professor of Music; B.M., M.M., Indiana University, 1949, 1950.

Howard Lowen Marshall, Professor of Music; B.M., Shenandoah Conservatory, 1952; M.M., University of Cincinnati, 1958; Ph.D., University of Rochester, 1968.

Full-Time:

John H. Dickson (2008) Dean, Professor of Music; B.A., Dallas Baptist University, 1975; M.M., Baylor University, 1977; D.M.A., University of Texas-Austin, 1985.


Montgomery C. Cole (2002), Associate Professor of Music; B.A., Humboldt State University, 1984; M.M., University of Kentucky, 1986; D.M.A., University of Cincinnati, 1998.


Carolyn S. Goff (1998), Associate Professor of Music; B.M., University of Tennessee, 1975; M.M., University of Central Arkansas, 1988; D.M.A., University of Illinois, 2000.


Richard Kosowski (2007), Assistant Professor of Music; B.M.E., Truman State University, 1987; M.M., University of Miami, 1997; D.M.A., University of Houston, 2008.

Martha Louise Malone (1990), Professor of Music; B.M., University of Georgia, 1978; M.M., Converse College, 1981; D.M.A., University of Cincinnati, 1994.


Marcus D. Reddick (2006), Assistant Professor of Music; B.M., University of Nebraska at Omaha, 1993; M.M., University of Nevada-Las Vegas, 1996; D.M.A., University of Kentucky, 2004.


John E. Simons (2005), Associate Professor of Music and Director of Graduate Studies; B.M.E., M.M., Baylor University, 1985, 1987; D.M.A., University of North Carolina at Greensboro, 1999.
Center for Strings Faculty:


David Halen (2008), Distinguished Artist, Violin; B.M., Central Missouri State University, 1979; M.M., University of Illinois, 1983.


Christopher Rex (2008), Cello Chair, Distinguished Artist, Cello; B.M., Curtis Institute of Music, 1972.

Sabina Thatcher (2008), Distinguished Artist, Viola; B.M., Eastman School of Music.

Adjunct Faculty:


Nancy Rehberg (1982), Senior Lecturer of Voice; B.M., Wesleyan College, 1966; M.M., Northwestern University, 1967.


Faculty - Division of Library Services - Macon

Emerita:

Mary Robison Howard (1987), Associate Professor, Emerita; B.A., College of William and Mary, 1959; M.A.L.S., University of Wisconsin-Milwaukee, 1976; M.A., Ball State University, 1986.

Tarver Library:

Elizabeth Dankert Hammond (1978) Associate Professor and Dean of University Libraries; B.A., University of Illinois-Urbana-Champaign, 1977; M.L.S., University of Illinois-Urbana-Champaign, 1978.

Laura M. Botts (2006), Assistant Professor and Head of Special Collections; B.A., Shorter College, 1993; M.S.L.I.S., Florida State University, 1995.

Susan Gardner Broome (1990), Associate Professor and Associate Director for Technical Services/ Tarver Library; B.A., Shorter College, 1973; M.S.L.S., University of Kentucky, 1975.


# INDEX

<table>
<thead>
<tr>
<th>Subject</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABX, Grade of</td>
<td>62</td>
</tr>
<tr>
<td>Academic and Advising Services</td>
<td>34</td>
</tr>
<tr>
<td>Academic Eligibility</td>
<td>69</td>
</tr>
<tr>
<td>Academic Information</td>
<td>59</td>
</tr>
<tr>
<td>Academic Load</td>
<td>65</td>
</tr>
<tr>
<td>Academic Probation</td>
<td>69</td>
</tr>
<tr>
<td>Academic Progress (Financial Aid)</td>
<td>49</td>
</tr>
<tr>
<td>Academic Resource Center</td>
<td>34</td>
</tr>
<tr>
<td>Academic Suspension</td>
<td>69</td>
</tr>
<tr>
<td>Academic Warning</td>
<td>69</td>
</tr>
<tr>
<td>Accounting (ACC)</td>
<td>248</td>
</tr>
<tr>
<td>Accreditation</td>
<td>17</td>
</tr>
<tr>
<td>Additional Depth Requirement (for CLA)</td>
<td>98</td>
</tr>
<tr>
<td>Admission</td>
<td>21</td>
</tr>
<tr>
<td>Advanced Placement</td>
<td>22, 66</td>
</tr>
<tr>
<td>Advising, Academic</td>
<td>36, 63</td>
</tr>
<tr>
<td>Africana Studies (AFR)</td>
<td>104</td>
</tr>
<tr>
<td>Anthropology (ANT)</td>
<td>223</td>
</tr>
<tr>
<td>Army ROTC Program</td>
<td>76</td>
</tr>
<tr>
<td>Art (ART)</td>
<td>107</td>
</tr>
<tr>
<td>Assessment, University-Wide</td>
<td>10</td>
</tr>
<tr>
<td>Athletics</td>
<td>32</td>
</tr>
<tr>
<td>Attendance, Class</td>
<td>67</td>
</tr>
<tr>
<td>Auditing Regulations</td>
<td>67</td>
</tr>
<tr>
<td>Auditors</td>
<td>25</td>
</tr>
<tr>
<td>Awarding of Degrees</td>
<td>74</td>
</tr>
<tr>
<td>Bear Card</td>
<td>37</td>
</tr>
<tr>
<td>Biology (BIO)</td>
<td>112</td>
</tr>
<tr>
<td>Biomedical Engineering (BME)</td>
<td>279, 399</td>
</tr>
<tr>
<td>Books, Cost of</td>
<td>47</td>
</tr>
<tr>
<td>Business (BUS)</td>
<td>250</td>
</tr>
<tr>
<td>Business Administration (BA/BAM)</td>
<td>384</td>
</tr>
<tr>
<td>Calendar (Macon)</td>
<td>3</td>
</tr>
<tr>
<td>Campus Facilities</td>
<td>19</td>
</tr>
<tr>
<td>Campus Map</td>
<td>483</td>
</tr>
<tr>
<td>Career Services</td>
<td>32</td>
</tr>
<tr>
<td>Certification Programs</td>
<td>330, 342</td>
</tr>
<tr>
<td>Chemistry (CHM)</td>
<td>118</td>
</tr>
<tr>
<td>Christianity (CHR)</td>
<td>123</td>
</tr>
<tr>
<td>Classical Literature (CLA)</td>
<td>173</td>
</tr>
<tr>
<td>Classification, Student</td>
<td>61</td>
</tr>
<tr>
<td>College of Continuing &amp; Professional Studies</td>
<td>17</td>
</tr>
<tr>
<td>College of Education, Tift</td>
<td>15, 329, 417</td>
</tr>
<tr>
<td>College of Liberal Arts</td>
<td>13, 93</td>
</tr>
<tr>
<td>Courses</td>
<td>104</td>
</tr>
<tr>
<td>General Education Program</td>
<td>93</td>
</tr>
<tr>
<td>Major, Minor and Concentration Programs</td>
<td>101</td>
</tr>
<tr>
<td>College of Nursing</td>
<td>16</td>
</tr>
<tr>
<td>College of Pharmacy and Health Sciences</td>
<td>15</td>
</tr>
<tr>
<td>Colleges and Schools, Mercer</td>
<td>13</td>
</tr>
<tr>
<td>CLEP</td>
<td>22, 66</td>
</tr>
<tr>
<td>Commencement Ceremonies</td>
<td>74</td>
</tr>
<tr>
<td>Common Core (for CLA)</td>
<td>94, 100</td>
</tr>
<tr>
<td>Communication Studies (CTA)</td>
<td>127</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>286, 400</td>
</tr>
<tr>
<td>Computer Science (CSC)</td>
<td>131</td>
</tr>
<tr>
<td>Concentrations (for CLA)</td>
<td>101</td>
</tr>
<tr>
<td>Continuing and Professional Studies, College</td>
<td>17</td>
</tr>
<tr>
<td>Contractual Obligations</td>
<td>41</td>
</tr>
<tr>
<td>Cooperative Education (CED)</td>
<td>226</td>
</tr>
<tr>
<td>Cooperative Education/Internship</td>
<td>33</td>
</tr>
<tr>
<td>Correspondence Directory</td>
<td>2</td>
</tr>
<tr>
<td>Counseling/Psychological Services</td>
<td>32</td>
</tr>
<tr>
<td>Course Changes</td>
<td>65</td>
</tr>
<tr>
<td>Course Loads</td>
<td>65</td>
</tr>
<tr>
<td>Course Numbers</td>
<td>61</td>
</tr>
<tr>
<td>Course Overloads</td>
<td>65</td>
</tr>
<tr>
<td>Course Withdrawals</td>
<td>65</td>
</tr>
<tr>
<td>Credit by Examination</td>
<td>22, 62, 103,</td>
</tr>
<tr>
<td></td>
<td>236, 267</td>
</tr>
<tr>
<td>Credit, Units of</td>
<td>61</td>
</tr>
<tr>
<td>Criminal Justice (CRJ)</td>
<td>224</td>
</tr>
<tr>
<td>Cultural Activities</td>
<td>32</td>
</tr>
<tr>
<td>Dean's List</td>
<td>72</td>
</tr>
<tr>
<td>Debts</td>
<td>42</td>
</tr>
<tr>
<td>Degree Programs</td>
<td>60</td>
</tr>
<tr>
<td>Degree Requirements</td>
<td>73</td>
</tr>
<tr>
<td>Departmental Honors</td>
<td>73</td>
</tr>
<tr>
<td>Dining Services</td>
<td>37</td>
</tr>
<tr>
<td>Directory, Correspondence</td>
<td>2</td>
</tr>
<tr>
<td>Disability Services</td>
<td>36</td>
</tr>
<tr>
<td>Distributional Program</td>
<td>97</td>
</tr>
<tr>
<td>Earth and Environmental Sciences</td>
<td>144</td>
</tr>
<tr>
<td>Economics (ECN)</td>
<td>150, 252</td>
</tr>
<tr>
<td>Education (EDUC)</td>
<td>344, 432</td>
</tr>
<tr>
<td>Educational Leadership (EDEL)</td>
<td>433</td>
</tr>
<tr>
<td>Educational Opportunity Center</td>
<td>36</td>
</tr>
<tr>
<td>Electrical Engineering (ECE)</td>
<td>289, 401</td>
</tr>
<tr>
<td>E-mail, Mercer</td>
<td>38</td>
</tr>
<tr>
<td>Employment, Student</td>
<td>58, 270</td>
</tr>
<tr>
<td>Endowed Scholarships</td>
<td>51</td>
</tr>
<tr>
<td>Engineering (School of)</td>
<td>14, 263</td>
</tr>
<tr>
<td>Biomedical (BME)</td>
<td>283, 400</td>
</tr>
<tr>
<td>Computer (ECE)</td>
<td>292, 401</td>
</tr>
<tr>
<td>Electrical (ECE)</td>
<td>292, 401</td>
</tr>
<tr>
<td>Engineering (EGR)</td>
<td>276</td>
</tr>
<tr>
<td>Engineering/Technical Management (ETM)</td>
<td>405</td>
</tr>
<tr>
<td>Environmental (EVE)</td>
<td>300</td>
</tr>
<tr>
<td>Industrial (ISE)</td>
<td>306</td>
</tr>
</tbody>
</table>

INDEX / 479
Industrial Work Experience .......... 270
Industrial Management (IDM) .......... 319
Mechanical (MAE) ................... 312, 407
Software/Software Systems (SSE) ...... 412
Technical Communication (TCO) ...... 325, 415
Engineering Research Center .......... 58, 265
Engineering/Technical Management .... 404
English (ENG) ...................... 153
English Language Institute (ELI) ... 90
Environmental Engineering .......... 297
Eugene W. Stetson School of Business and Economics .......... 14, 233, 379
Examinations, Final ................... 66
Exchange Programs .................. 90
Executive Forum .................... 238
Facilities, Campus .................. 74
Family Educational Rights and Privacy Act (FERPA) .......... 75
Fees .................. 39
Federal Grants ...................... 54
FERPA .......................... 75
Final Exams ........................ 66
Finance (FIN) ...................... 255
Financial Assistance ................ 47
Financial Aid Policies .............. 48
Financial Information ............... 39
First-Year Seminar (FYS/X) ......... 160
Food Services ...................... 37
Foreign Languages/Literatures (FLL) .... 161
Foreign Language Competency/ Placement ........ 99
Foundations, Mercer ................. 12
Fraternities ....................... 30
French (FRE) ...................... 163
General Education ................ 59
Georgia Baptist College of Nursing .16
Georgia Tuition Equalization Grant Program .......... 55
German (GER) ..................... 165
Goals, University .................. 9
Grade Appeals ..................... 63
Grade Reports ..................... 63
Grading System ................... 62
Graduate Studies ................... 375
School of Engineering .......... 395
Stetson School of Business .... 379
Tift College of Education .......... 417
Townsend School of Music .......... 439
Graduation ........................ 74
Application ........................ 74
Honors .......................... 70
Grants .......................... 50, 54
Grants and Contracts Office .......... 18
Great Books Program (GBK) .......... 96, 174
Greek (GRK) ..................... 167
Health Center, Student .............. 38
Health Education (HED) ............ 176
Health Insurance, Student .......... 28
History (HIS) ..................... 177
History of Mercer ................. 10
Holistic Child/Educator .......... 337
Home Educated Applicants .......... 21
Honor System ........................ 29
Honor Societies .................... 30
Honors Program (HON) ............ 70, 181, 268
Honors, Graduation with ............ 79 2
Honors, Departmental ............... 73
HOPE Scholarship ................. 55
HOPE Teacher Scholarship .......... 56
Housing/Residence Life .......... 36
Immunization Policy ............... 27
In Progress, Grade of .......... 63
Incomplete, Grade of .............. 62
Individualized Major .......... 102
Industrial Engineering (ISE) ..... 302
Industrial Management (IDM) .... 315
Information Science/Technology (IST) ........ 138
Insurance, Student Health .......... 28
Intercollegiate Athletics ............ 32
Interdisciplinary Studies (IDS) .... 185
International Affairs (IAF) ........ 209
International Baccalaureate ....... 22
International Programs ............ 19, 86
International Students .......... 25
International Study Abroad (ISA) ... 226
Italian (ITA) ..................... 168
James and Carolyn McAfee School of Theology .......... 16
Journalism & Media Studies (JMS) .. 185
Judicial Education ............... 39 7
Latin (LAT) ..................... 168
Law Degree/Master of Business, Joint ................ 385
Leadership/Community Service,
Program in ............... 211
Leadership & Volunteerism .......... 31
Learning Skills (LSK) ............ 227
Leave of Absence ............... 46
Library Services .............. 34
Linked-Course Sections .......... 103
Load, Academic .............. 65
Loans, Student .............. 56
Mail, Campus .............. 38
Managed Academic Path to Success (MAP) .......... 246, 256
Map of Campus .................. 483
<table>
<thead>
<tr>
<th>Study Abroad Program</th>
<th>87, 162</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer School</td>
<td>85</td>
</tr>
<tr>
<td>Suspension, Academic</td>
<td>69</td>
</tr>
<tr>
<td>Teacher Education Minor</td>
<td>344</td>
</tr>
<tr>
<td>Teacher Education Program</td>
<td>85</td>
</tr>
<tr>
<td>Technical Communication</td>
<td>320</td>
</tr>
<tr>
<td>Technical Communication</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>413</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>38</td>
</tr>
<tr>
<td>Term Withdrawal</td>
<td>65</td>
</tr>
<tr>
<td>Theatre (THR)</td>
<td>129</td>
</tr>
<tr>
<td>Tift College of Education</td>
<td>14, 329, 429</td>
</tr>
<tr>
<td>Certification Programs</td>
<td>330, 336</td>
</tr>
<tr>
<td>Courses</td>
<td>344</td>
</tr>
<tr>
<td>Degree Programs</td>
<td>330</td>
</tr>
<tr>
<td>General Education</td>
<td>331</td>
</tr>
<tr>
<td>Graduate Programs</td>
<td>417</td>
</tr>
<tr>
<td>Majors</td>
<td>330</td>
</tr>
<tr>
<td>Minor</td>
<td>344</td>
</tr>
<tr>
<td>TOEFL</td>
<td>26</td>
</tr>
<tr>
<td>Townsend School of Music</td>
<td>15, 355, 439</td>
</tr>
<tr>
<td>Courses</td>
<td>363, 447</td>
</tr>
<tr>
<td>Degree Programs</td>
<td>358</td>
</tr>
<tr>
<td>General Education Program</td>
<td>360</td>
</tr>
<tr>
<td>Graduate Programs</td>
<td>439</td>
</tr>
<tr>
<td>Transcripts (Academic Records)</td>
<td>74</td>
</tr>
<tr>
<td>Transfer Credit</td>
<td>23, 235, 266, 355, 376, 381, 398</td>
</tr>
<tr>
<td>Transfer Students</td>
<td>23</td>
</tr>
<tr>
<td>Transient Status, Mercer Students</td>
<td>68</td>
</tr>
<tr>
<td>Transient Students</td>
<td>25</td>
</tr>
<tr>
<td>Tuition</td>
<td>39</td>
</tr>
<tr>
<td>Unclassified Students</td>
<td>25</td>
</tr>
<tr>
<td>Units of Credit</td>
<td>61</td>
</tr>
<tr>
<td>University Life (UNV)</td>
<td>228</td>
</tr>
<tr>
<td>University Goals</td>
<td>9</td>
</tr>
<tr>
<td>University History</td>
<td>10</td>
</tr>
<tr>
<td>University Mission</td>
<td>9, 12</td>
</tr>
<tr>
<td>University-Wide Assessment</td>
<td>10</td>
</tr>
<tr>
<td>Upward Bound</td>
<td>36</td>
</tr>
<tr>
<td>Veteran's Benefits</td>
<td>28</td>
</tr>
<tr>
<td>Walter F. George School</td>
<td></td>
</tr>
<tr>
<td>Warning, Academic</td>
<td>69</td>
</tr>
<tr>
<td>Women's &amp; Gender Studies (WGS)</td>
<td>228</td>
</tr>
<tr>
<td>World Literature in Translation (WLT)</td>
<td>174</td>
</tr>
<tr>
<td>Work-Study Program</td>
<td>58</td>
</tr>
</tbody>
</table>