The University of Tennessee at Chattanooga

UTC

CATALOG

UNDERGRADUATE 1999*2000

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The University of Tennessee at Chattanooga does not discriminate on the basis of race, sex, color, religion, national origin, age, handicap, or veteran status in provision of educational opportunities or employment opportunities and benefits. The University does not discriminate on the basis of sex or handicap in the education programs and activities which it operates, pursuant to the requirements of Title IX of the Education Amendments of 1972, Pub. L. 92-318; and Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112; and the Americans With Disabilities Act of 1990, Pub. L. 101-336, respectively. This policy extends to both employment by and admission to the University. Inquiries concerning Title IX, Section 504, and the Americans with Disabilities Act should be directed to the Office of the Director for Affirmative Action, 104 Founders Hall, (423) 755-4124. Charges of violation of the above policy should also be directed to the Office of the Director for Affirmative Action.
EO40222-004-99

Student Right To Know

The following information is provided in accordance with the Student Right To Know Act.

By the end of the 1997-98 school year, 40 percent of those students who entered The University of Tennessee at Chattanooga as full-time freshman in fall 1992 had completed baccalaureate degrees at UTC.

Any questions concerning this or similar information on student athletes contact:

Dr. Richard Gruetzemacher
Office of Planning, Research & Institutional Research
615 McCallie Avenue
Chattanooga, TN 37403-2598
(423) 755-4007

Information

The course offerings and requirements of the University are continually under examination and revision. This catalog presents the offerings and requirements in effect at the time of publication, but is no guarantee that they will not be changed or revoked. Current information may be obtained from the following sources:

Visit our website at:
http://www.utc.edu

Admission requirements—Director of Admissions Phone: (423) 755-4662 or toll-free 1-800-UTC-MOCS

Course offerings—Department offering course or faculty adviser, head of major departments, or dean of college/school. Phone: (423) 755-4111 for department number.

Fees & tuition—Bursar Phone: (423) 755-4781

Financial aid—Director of Financial Aid Phone: (423) 755-4677

Graduate admission requirements—Office of Graduate Studies *Phone:* (423) 755-4666

Housing—Student Affairs Phone: (423)755-4304

Registration—Director of Records and Registration Phone: (423)755-4416

University operator—(423) 755-4111

The University

History

When the Methodist Episcopal Church began to explore the possibilities of developing a central university in the South, Chattanoogans came forward to work with the church in this effort. Since its founding as Chattanooga University in 1886, The University of Tennessee at Chattanooga has developed an institutional excellence which rests on an unusual blend of the private and public traditions of American education.

For 83 years the University was a private school. Three years after its founding, the University was consolidated with another church-related school, East Tennessee Wesleyan University at Athens, under the name of Grant University. In 1907 the name University of Chattanooga was adopted.

In 1969 the University of Chattanooga and a junior college, Chattanooga City College, merged with The University of Tennessee, one of the oldest land-grant universities in the nation, to form the UTC campus. Pledged to the service of the entire state, The University of Tennessee has emerged as a statewide system consisting of four primary campuses. The new campus was given the mandate to devote the major portion of its resources to the development of excellence in undergraduate education and in selected areas of graduate study.

The University's wide diversity of degree programs has attracted a current enrollment of more than 8,500 students who represent 74 Tennessee counties, 41 states and U.S. possessions and 41 foreign countries.

Accreditations and Memberships

The University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools to award bachelor's and master's degrees. It is also accredited by the National Council for Accreditation of Teacher Education, the National Association of Schools of Music, the American Chemical Society, the Engineering Accreditation Commission/Accreditation Board for Engineering and Technology, the American Assembly of Collegiate Schools of Business, the National League for Nursing, the National Council on Social Work Education, the International Association of Counseling Services, Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association, the Accreditation Council for Education in Journalism and Mass Communication, and the National Association of Schools of Art and Design.

The University is a charter member of the Southern University Conference and is a member of the American Association of Colleges for Teacher Education, American Alumni Council, American Council on Education, Association of American Universities, Association for Continuing Higher Education, American Association of State Colleges and Universities, Council of Graduate Schools in the United States, National University Extension Association, the Tennessee College Association, and the Servicemembers Opportunity Colleges.

Oak Ridge Associated Universities

The University of Tennessee at Chattanooga has been a sponsoringinstitution of OakRidge Associated Universities (ORAU) since 1969. ORAU is a private, not-for-profit consortium of 65 colleges and universities and a management and operating contractor for the U.S. Department of Energy with principal offices located in Oak Ridge, Tenn. Founded in 1946, ORAU provides and develops capabilities critical to the nation's technology infrastructure, particularly in energy, education, health, and the environment. ORAU works with and for its member institutions to help faculty and students gain access to federal research facilities; to keep members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among our members in areas where their collective strengths can be focused on issues of national importance.

ORAU manages the Oak Ridge Institute for Science and Education (ORISE) for the U.S. Department of Energy. ORISE is responsible for national and international programs in science and engineering education, training and management systems, energy and environment systems, and medical sciences. ORISE's competitive programs bring students at all levels, K-12 through postgraduate, and university faculty members into federal and private laboratories.

ORAU's office for University, Industry, and Government Alliances seeks opportunities for collaborative alliances among its member universities, private industry, and federal laboratories. Other activities include sponsoring conferences and workshops, the Visting Scholars program, and the Junior Faculty Enhancement Awards.

Mission

The mission of The University of Tennessee at Chattanooga is the education of students: to assist in the enlightening and disciplining of their minds and their preparation for ethical and active leadership in civic, cultural, and professional life. To achieve this mission, the University engages in the complementary and mutually supportive activities of teaching, research, and service.

The University combines the advantages of a strong private tradition with those of a state-assisted institution. Dedicated to providing quality education to a diverse population of over 8,100 students, UTC seeks to meet its responsibilities as an emerging metropolitan university, actively involved with regional municipalities, schools, business, and industry and offering expanded instructional opportunities that respond to area needs. The University's ability to fulfill this role is enhanced by continuing support from its alumni, community, and the University of Chattanooga Foundation, a public, nonprofit organization which administers most of UTC's private endowment.

The hallmark of the University is outstanding teaching by a talented and committed faculty. Full-time and qualified adjunct faculty rather than graduate students teach all classes. Small classes, personalized advising, and frequent opportunities to interact with faculty provide a student-oriented learning experience.

Research is a priority for the campus. Effective teaching and faculty involvement in scholarship, research, and creative activities are interdependent. These activities foster the intellectual growth of the faculty, provide students with opportunities to participate in the development and application of new knowledge, and enhance the region's growth. The Center of Excellence for Computer Applications already has enhanced many multidisciplinary initiatives. A program of well-endowed chairs, (including a significant number of Chairs of Excellence), professorships, and centers builds upon a tradition of faculty research.

The University's programs provide both a firm grounding in the liberal arts and strong professional preparation. Bachelor's degrees are offered in the liberal arts, sciences, business/education, engineering, fine arts, health, human services, nursing, and physical therapy. Master's degrees are offered in athletic training, business, computer science, criminal justice, education, engineering, English, music, nursing, psychology, and public administration. UTC will develop new programs at the master's level to meet emerging community needs. UTC may develop selected doctoral programs, in areas of existing strength, that meet regional and national needs.

Education at UTC goes beyond the traditional classroom and laboratory as befits an institution where service is also a high priority. UTC faculty members will continue to bring their professional expertise to bear on the concerns of the larger community. Moreover, the University takes advantage of its metropolitan location to provide firsthand learning experiences to students through career-related work experience. Innovative programs such as Brock Scholars and Honors serve exceptionally talented students. Off campus, the University offers credit and noncredit instruction for professional and intellectual development, extending its educational mission to an even broader range of citizens.

As UTC looks to its future and the emerging needs of the metropolitan region, it will continue its commitment to quality education, excellent research, and dedicated service.

As it pursues all activities in support of its mission, the University is committed to affirmative action and other programs which contribute to the cultural and ethnic diversity of the campus.

The Community

The University is located only a few blocks from the urban area of Chattanooga, a city that is both highly industrial and rich in natural beauty. Claiming more than 600 industries, Chattanooga lies at the foot of Lookout and Signal Mountains where the Tennessee River forms Moccasin Bend. These sites possess historical significance as well as beauty in a city steeped in the heritage of the Civil War.

The cultural environment of Chattanooga is enhanced by contributions from the University and the many civic organizations that support the arts through dramatic productions, concerts, and art exhibits. Ten city parks, seven public golf courses, and a 35,400 acre lake provide a variety of recreational activities.

With a population of about 162,170 in a metropolitan statistical area of over 466,647, Chattanooga is easily accessible from all parts of the nation by air and bus.

Admissions and Regulations

UNDERGRADUATE ADMISSIONS

The Admissions Office administers all matters pertaining to undergraduate admission. All requests for information and application forms should be addressed to the Office of Undergraduate Admissions, The University of Tennessee at Chattanooga, Chattanooga, Tennessee 37403. The Admissions Office is located in room 131 Hooper Hall and the telephone number is (423) 755-4662. Completed admissions applications and credentials should be sent to the same office. A $25 non-refundable application fee is required of all candidates who have not previously applied t6 a University of Tennessee campus or the University of Chattanooga.

New students may be admitted for the fall or spring semester or any summer session. Every effort should be made to submit the completed application and supporting credentials no later than four weeks prior to the beginning of the semester in which admission is desired. Freshmen applying for the fall semester must apply by August 1 for full consideration; the deadline for spring semester is December 1, and May 1 is the deadline for all summer sessions.

Orientation and Advising

New student orientation programs for freshmen and transfer students are directed by the Orientation Office and combine the services and skills of the Admissions Office, the Advisement Office, the Registration Office, and, the Student Affairs Office. These programs provide an introduction to the campus and University life. The Student Orientation Council, composed of upperclass student leaders, also has a major role in planning and coordinating new student orientation.

Each orientation program includes a tour of the campus, an explanation of its facilities and academic offerings, small group discussions with faculty and students, advising and registration, plus entertainment and the opportunity to get acquainted with fellow students. In addition, subject placement exams are given to establish the level of proficiency. Students may be placed in the regular or developmental curriculum as a result of the exams.

The Retention and Advisement Office coordinates die activities of the Faculty Advisory Council, which is a panel composed of faculty members selected for their expertise in dealing with student-related matters. These advisers assist students in reaching their academic and career goals and provide personal attention for freshmen and all pre-majors. Results of placement and achievement tests as well as copies of the students' records are made available to the advisers for use in advisement.

Engineering, music, nursing, chemistry, communication, education, human ecology, biological and environmental science, physical therapy, and humanities majors, and students who have completed 30 or more hours are advised by the major departments.

To schedule an appointment with an adviser, the student should go to the Retention and Advisement Office, located in 258 Hooper Hall, or call (423) 755-4573.

Applying for Admissions

Requirements for freshmen are described below, followed by special requirements for adult applicants. Requirements for transfer students (students who have attended another college) are on page 6. Transient students and others who are not seeking a degree should refer to special requirements listed on page 8.

Credentials for all Freshman Applicants

The following credentials must be submitted before an applicant can be considered for freshman admission:

1. Application for admission.
2. Official high school transcript. The high school transcript may be sent any time after the completion of the junior year. A final transcript showing all grades must be submitted after high school graduation and must include type of diploma and date of graduation. Applicants with high school equivalency diplomas should submit scores from the General Education Development Test as well as official transcripts of completed high school work.
3. ACT or SAT scores (for freshmen under 21)

4. $25.00 non-refundable application fee.

High School Preparation

Completion of a college preparatory program in high school is expected for admission of freshmen. Minimum high school unit requirements are as follows:

Subject Area	Units Required
English	4
Algebra	2
Geometry	1
Laboratory Science	2
American History	1
World History or World Geography or European History	1
A single foreign language	2
Visual/Performing Arts	1
Total	**14**

Applicants who have deficiencies in any of the above areas may be denied admission. Those who are admitted with deficiencies will be required to take courses which will not apply toward their college degrees. For further details, see the section entitled "Conditional Admission."

In addition to the minimum high school unit requirements listed above, students should plan high school courses of study that will prepare diem for their specific areas of interest. In particular, four years of college preparatory mathematics are recommended for students considering majors in science, medical technology, engineering and other mathematics related fields. Engineering majors are also advised to take 3 units of science including physics.

After admission, UTC freshmen take placement tests in reading, writing and mathematics to determine whether they will need to enroll in developmental courses prior to college level courses. Taking a strong college preparatory curriculum in high school will help students do well on these placement tests.

Types of Admission

Two categories of admission for applicants under 21 years of age are described below. Special requirements for adult students (21 years of age or older) are described in the section entitled "Adult Freshman Admissions."

Regular Admission

Regular admission will be granted to graduates of approved high schools* who meet one of the following two descriptions:

1. a high school grade point average of at least 2.75 (on a 4.0 scale) *and* a minimum score of 16 on the Enhanced ACT (760 SAT) *and* completion of all 14 high school units listed above.

OR

2. a high school grade point average of at least 2.00 (on a 4-0 scale) *and* a minimum score of 21 on the Enhanced ACT (980 SAT) and completion of all 14 high school units listed above.

Conditional Admission

Students who do not qualify for regular admission are eligible for conditional admission if they meet the following minimal requirements:

1. Completion of the 14 high school units listed above;
2. Minimum high school grade point average of 2.0 (on a 4.0 scale);
3. Minimum score of 16 on the Enhanced ACT (760 SAT);
4. High school graduation or acceptable high school equivalency diploma (45 on the General Education Development test).

Applicants with extenuating circumstances who fail to meet conditional admission requirements will be considered for conditional admission on a case-by-case basis. Students admitted with high school unit deficiencies will be required to remove their deficiencies by taking specified courses within their first 42 hours of enrollment. Credit earned in such courses does not apply toward any degree requirements, including general education,.major or elective requirements. Students admitted with a high school deficiency in American history are required by Tennessee law to complete 6 semester hours of college-level American history (Tennessee Code Annotated 549-3253).

Freshmen admitted on condition must earn at least 1.0 GPA during their first semester at UTC or suspension will result. If a student is placed in developmental courses, tlie institutional grade point average will be used to determine continuation. The cumulative grade point average will be used for continuation standards of all other students. In addition, they may be subject to one or more of the following conditions:

a) reduced course credit load;
b) specific course requirements;
c) specific academic advisor;
d) specific program of developmental studies;
e) enrollment in summer programs designed to improve academic skills.

Adult Freshman Admission

The University of Tennessee at Chattanooga encourages applications from adults who are 21 years of age or older. Adult freshmen applicants are expected to submit official high school transcripts, including type of diploma and date of graduation, but do not need to submit ACT or SAT scores. Applicants may be asked to take UTC placement examinations to help demonstrate their academic preparedness for college. Applicants with high school equivalency diplomas are expected to present a score of at least 45 on the General Education Development test.

Admission decisions will be made on a case-by-case basis by either the director or associate director of admissions using all available evidence, including applicant's post-high school experiences. In addition, students may be subject to one or more of the following conditions:

1. Reduced course credit load;
2. Specific course requirements;
3. Specific academic advisor
4- Specific program of developmental studies.

Transfer Students

Applicants for admission as degree seeking students who have been registered in another college or university are classified as transfer students. They must submit to the Undergraduate Admissions Office complete official transcripts from each previously attended college and an official high school transcript showing graduation and type of diploma. Transfers applying for the fall semester must have all supporting credentials listed above on file in the Admissions Office by August 1. Transfers applying for the spring semester must do so by December 1. Transfers applying for any summer semester must apply by May 1.

'Approved high schools are those approved by the State Department of Education or by the regional accreditation association. In the case of graduates of high schools *which have not* been *so approved,* regular admission will be granted to applicants with high school grade point average of at least 2.75 and a score of 21 on the Enhanced ACT (980 SAT) and completion of all 14 high school units.

For admission as transfer students, students must have pursued courses appropriate to the curriculum at The University of Tennessee at Chattanooga, must be eligible to return to their last institution, and must meet The University of Tennessee at Chattanooga's continuation standards (see page 25 for standards). Grades for all courses attempted will be used in determining the continuation standards. Students who graduated from high school in 1989 or after and are transferring fewer than 60 hours of semester credit, must also meet the minimum high school unit requirements and are required to take UTC's placement exams unless an exemption is granted. Refer to page 6 for high school unit and placement exam requirements.

Students whose records do not meet the standards required by the University for admission will be denied admission unless, in the opinion of the Associate Provost for Academic Administration or his designate, acceptance on scholastic probation is justified. If admitted on probation, students will be required to remove high school unit deficiencies within their first 30 hours of enrollment at UTC. Credits earned in such courses do not apply toward any degree requirements, including general education, major or elective requirements.

The University will usually accept, by transfer, courses completed at regionally accredited colleges and universities. Courses submitted for transfer are equated on a course-by-course basis with the awarding of equivalent or elective credit. Credit will not be given to courses that are not appropriate to the curriculum of UTC. Transfer students from senior institutions must complete at least their last 30 academic semester hours of work at The University of Tennessee at Chattanooga. Transfer students from two-year institutions must complete their last 60 semester credit hours at a senior institution. A student who earns credit at a two-year college during his last 60 hours at UTC may choose not to apply the credit toward graduation. Transfer courses are usually accepted at full credit value as either specific course equivalents or electives.

Students wishing to transfer to The University of Tennessee at Chattanooga from regionally unaccredited colleges and universities must meet UTC's admissions requirements. Information concerning the acceptance of credit from such institutions will be furnished at the time of application.

Transfer credits accepted by The University of Tennessee at Chattanooga will be entered on the academic record only after the student has registered for classes at The University of Tennessee at Chattanooga. Applicants who fail to declare previous college attendance and to submit transcripts of such records will be subject to dismissal from the University.

Special Cases

Adult Special Status

An applicant 21 years of age or older who wishes to take undergraduate courses, but who does not plan to work toward a degree from The University of Tennessee at Chattanooga, may be admitted as an adult special student. The applicant must give satisfactory evidence of preparedness to take the courses open to him or her. An adult special student must meet the same course requirements as regular students since the special student's work is graded at the completion of the course. An adult special student may subsequently apply for regular student status at the University. In^uch a case the student's grades will be reviewed and up to 60 semester hours of credit may be counted toward fulfillment of degree requirements. Students who have previously been suspended or dismissed from the University of Chattanooga or The University of Tennessee may not enroll as adult special students. Students with college credit from another institution may not enroll as adult special students.

Audit Student Status

Adults who wish to attend undergraduate classes without earning credit or receiving grades may register as auditors only if the space is available in the class desired and if the instructor approves the registration. Any adult student entering under audit classification who subsequently wishes to take courses for credit must meet all requirements for admission to the University. Those urtder 21 may have this privilege only if they have fulfilled the admission requirements of the University.

Auditors are under no obligation of regular attendance, preparation, recitation, or examination. They receive no grades and no credit. The degree of their participation in class discussion, laboratory, or field work shall be determined by the instructor of the class.

The tuition and fee charge is the same for audit registration as for credit registration. Academic records are maintained only for audited courses in which the student attends at least 75 percent of the class sessions.

College Challenge Program

The College Challenge Program is designed to give outstanding high school students an opportunity to preview college through taking selected college courses. Courses are offered during the summer or the regular academic year at convenient times on the UTC campus. Special sections of regular college courses may be offered or high school students will be permitted to enroll along with college students in regular courses. The admission to the College Challenge Program requires the following:

1. Enrollment in high school or intention to return to high school in order to complete requirements for a diploma,
2. A grade point average of at least a 3.0 (B),
3. Recommendation of high school principal or guidance counselor, and
4- Permission of UTC teacher and/or department head.

Students will be permitted to earn up to 24 semester hours in the program and may take a maximum of 12 hours in the summer and no more than two courses during the fall and spring semester. The credits will be applicable to a degree at UTC or may be transferred.

Early Admission

The University has a program of early admission for exceptionally gifted students. In order to be eligible for the early admission program, a student at the end of the junior year in high school should have a 3.5 high school average and score in the 95th percentile or above of University norms on the ACT or the SAT examination. A student may apply for early admission with the consent of his or her parents and the approval of the student's principal or guidance counselor. Assuming the student meets the previously listed requirements, he or she will be admitted only if

in the opinion of the Associate Provost for Academic Administration the student will clearly profit from this kind of placement. In most cases a personal interview with the student is required.

Such students may be considered for admission as full-time students, summer session students, or on a dual enrollment basis while completing secondary school.

GED Applicants

A high school equivalency diploma will be accepted in place of high school graduation if the applicant has scored at least 45 on the General Education Development test (GED). Applicants who are 21 years of age or older should refer to the section entitled "Adult Freshman Admissions" for further requirements. Applicants less than 21 years of age should refer to the section entitled "Freshman Admission Requirements" for further requirements. Please note that applicants with extenuating circumstances who fail) to meet admission requirements will be considered for conditional admission on a case-by-case basis.

International Students

In making application for admission to undergraduate study, each international student will be required to provide the following:

1. A completed application for undergraduate admission accompanied by the $25 application fee.
2. Authenticated copies of the applicant's academic records. These records should describe the courses of instruction in terms of years spent in school and types of subject matter covered with grades earned in each subject. These documents must be interpreted in English.
3. A minimum score of 500 on the Test of English as a Foreign Language for applicants whose native language is not English. Information about this test is obtained from the Educational Testing Service, Box 899, Princeton, New Jersey 08540.
4- A medical record, filled out and submitted no earlier than six months prior to proposed entrance. All international students must submit evidence of a negative tuberculin test prior to being given permission to enroll.
5. Evidence dated no earlier than six months prior to registration that the applicant has adequate financial resources to meet the expenses of attending the University, and that such resources will be available to the applicant in the United States prior to the date of his or her registration at the University.
, 6. Students must date and sign an estimate of expense form showing they are aware of the costs in attending the University.
7. Transfer students must supply a letter of good standing from their Foreign Student Adviser or dean of students and must meet the requirements for admission to the University as a transfer and an international student. These requirements are stated in the section on *Transfer Students.*
8. All international students are required to enroll in Plan II insurance program for UT students.

All application materials must be submitted and processed by August 1 for the fall semester, December 1 for the spring semester. All admission materials should be sent to the Office of Undergraduate Admissions.

Post'baccalaureate Admission

See Graduate Studies, page 38

Students desiring a second bachelor's degree should contact the Adult Services Center.

Readmission

Former students in good standing who have been away from the University for one semester or more (excluding the summer) must apply for readmission. If they have attended any other college or university during their absence, they must also meet the requirements for admission to the University as transfer students as stated on page 6, with the exception that no application fee is required for readmission. Students who have been suspended or dismissed from the University are referred to the section on Continuation Standards for the conditions under which they may be readmitted.

Readmission students who have not attended any other institution in their absence must submit their completed application by August 15 for fall, December 31 for spring and May 1, June 1 or July 1 for each respective summer term. Readmission students who have attended another institution must meet the transfer student deadline and submit a completed application by August 1 for fall, December 1 for spring and May 1 for all summer terms.

Special Audit and Special Fee Students

Tennessee residents who are at least sixty years of age may audit classes on a space available basis at die University without paying a fee. Similar arrangements are available for Tennessee residents who are 100 percent disabled.

Tennessee residents who are 65 years of age or older and persons totally disabled who meet admission requirements may enroll for credit for a fee of $7.50 per semester hour to a maximum of $75 per semester.

Persons wishing to participate in any of the above programs should call the Adult Services Center (615) 755-4485.

Transient Students

Students who are enrolled in another college or university and do not wish to transfer to UTC and seek a degree may enroll as transient students. Enrollment under this condition is usually for one semester and students are usually enrolled in courses that will transfer to another institution and apply toward degree requirements. A letter indicating that the student is in "good standing" (eligible to return) must be sent to the Office of Undergraduate Admissions from either the registrar or academic dean of their present institution. A transient student cannot be on any type of academic or disciplinary restriction, warning or action such as probation, suspension or dismissal. If a transient student wishes to continue enrollment past the initial semester, an additional letter of good standing may be required.

Appeals for Admission

Students who are denied admission have the right to appeal the decision to the chancellor of UTC. Appeals must be submitted in writing by the end of the first five class days of the fall and spring semesters and the first two class days of any summer term. Students granted admission by appeal may be required to meet the same conditions as stated above.

Residency Appeals Procedure

All residency appeals for a given semester must be submitted along with all necessary supporting evidence to the appropriate admissions office (Undergraduate or Graduate) on or before 5:00 P-m. of the fifth day of classes counting from the first official day of classes. Those appealing for a five-week summer term have until 5:00 p.m. of the third day of classes. These deadlines also apply to students seeking to pay in-state fees due to their full-time employment in the state of Tennessee. Decisions on appeals made be-

fore the deadline will be effective for that semester. Appeals received after die deadline, if granted, will be effective the following semester.

The Associate Director of Admissions serves as the primary classification officer for undergraduate students enrolled at The University of Tennessee at Chattanooga. Residence classification appeals should be made in writing (on the appropriate form which can be obtained from the Admissions Office) to the Associate Director of Admissions, 131 Hooper Hall. Appeals should include appropriate evidence to Support the student's establishment of domicile in the state of Tennessee.

The decision of the Associate Director of Admissions may be appealed to the chairman of the Residency Appeals Committee by making this request in writing to the Associate Director. The chairman of the committee will schedule a hearing to review the student's request and, following the hearing, the committee will make a decision on the appeal. The student may be present at the committee's hearing and may bring to the hearing any materials or other individuals (including legal counsel) that he or she believes will support the appeal.

The student may appeal the committee's decision to the chancellor of UTC in writing. The student has the right to appeal the chancellor's decision to the president of the University of Tennessee in writing. Final appeals are decided by the Board of Trustees for the University of Tennessee.

Measles Immunization Requirement

In an attempt to maintain a healthy campus environment, the University of Tennessee campuses now require that all new entering students, born after 1956, furnish documented proof of having immunity or having been immunized with a live measles vaccine after January 1, 1980 unless contraindicated because of pregnancy, allergy to a vaccine component, or other valid medical reasons. A verification of immunization, signed by a health care provider, should be returned to Health Services. An official copy of the "Permanent Tennessee Certificate of Immunization" (form PH-2414) or a comparable immunization form from another state will also be acceptable.

Special Credit

Advanced Placement

In addition to advanced standing by transfer work, students admitted to the University may obtain advanced placement by any of several examinations.

The University participates in the advanced placement program of the College Entrance Examination Board (CEEB). Applicants who have taken the advanced placement examinations may submit the results to the Undergraduate Admissions Office, 129 Hooper Hall, for consideration.

The University may grant credit and advanced placement in the subject of the examinations to those entering students who earn scores of three, four, or five. Some departments may exercise their option to require a minimum score of four. Such students may then begin their college study at the level for which their advanced preparation has qualified them. Examinations with grades of three or two will be referred to the appropriate department, which Will determine whether credit or advanced placement can be granted.

Credit earned through advanced placement will be entered on the student's academic record at the University but will not be computed in the grade point average.

College Level Examination Program

Students will be allowed 15 elective hours for successfully passing CLEP general examinations. They may earn three hours of elective credit by successfully passing the CLEP general examination in English Composition with a score of 530-610. Students may earn three hours of elective credit per exam by passing CLEP general examinations in mathematics, humanities, natural sciences, social sciences, and history with a score of 421 -500. These credits will not satisfy UTC general education requirements.

UTC also recognizes and accepts credit derived from several of the subject area examinations of the College Level Examination Program of CEEB. The CLEP subject examinations measure achievement in a number of specific undergraduate courses. A report of test scores should be sent directly to die Undergraduate Admissions Office, 129 Hooper Hall, for consideration. Individual academic departments set standards for the acceptance of CLEP credits. Therefore, the required percentile grade for credit at UTC varies. Some departments accept no credit via CLEP.

Credit earned will be entered on the student's academic record but will not be computed in the grade point average.

Cooperative Education Program

The Cooperative Education Program provides students with the opportunity to gain practical work experience in their majors. Students will be placed in work experience settings which closely relates to their academic majors. The students will be placed on an alternating schedule which requires that they work full time one semester and attend school full time the next semester, or on a parallel schedule which requires the students to work a minimum of 15 hours/maximum of 20 hours per week and attend school full time during the same semester.

Students placed in co-op should register with a major department for course 001 at the beginning of each semester they are employed. Only students who have advanced approval of the Office of Cooperative Education and their major department can be enrolled in this course.

Correspondence and Extension Credit

Up to one-fourth of the hours (excluding physical education) required for an undergraduate degree may be earned by correspondence or by correspondence and extension combined. The same limitations apply to hours in the major. All such courses must meet degree requirements at The University of Tennessee at Chattanooga. Correspondence and extension courses may not be taken within the last 30 hours of degree credit work unless advanced approval has been granted by the Petitions Committee.

The University of Tennessee correspondence program provides over 100 UT college credit courses in Arts and Sciences, Business Management, Agriculture, Education, Human Ecology, and Criminal Justice. Catalogs of correspondence study offered through The University of Tennessee are available in the Office of Continuing Education.

Credit for Experience

Individuab who have not earned a baccalaureate degree may be eligible to receive credit for work experience, inservice training, and certified professional programs through the UTC Individualized Education Program. Information concerning the IEP is available in the Office of Cooperative Education, (423) 755-4735. A fee of $47 will be eharged for each semester hour of undergraduate credit awarded. A fee of $66 will be charged for each semester hour of graduate credit awarded.

Credit by Special Examination (Undergraduate)

Any student who has been admitted to the University is eligible to receive credit by special examination for competence gained through study or experience primarily independent of University class activities. Credit by special examination may be given for courses offered in the catalog with the exception of:

1. courses described as directed research, tutorial, or directed independent study;
2. any course from which the student has been exempted by placement examination or which the student has presented for admission purposes;
3. any course in any education teaching block; or
4. courses in which the student has received a final grade.

A fee of $47 will be charged for each undergraduate semester hour of credit.

Students seeking credit by special examination shall, on forms provided by the director of records, request approval from the permanent committee on special examinations established by the department under which the course is described in die catalog. The departmental committee will grant or deny the request pursuant to the standards stated on the request form. The departmental committee shall deny the request if it determines that the student would realize substantial benefits only from participating in the activities of the course in question.

The method for designing, administering, and evaluating the special examination will be determined by the departmental committee on special examinations. The examination shall in all circumstances be comparable in scope and difficulty to a comprehensive final examination in that course. No student will be allowed to repeat a special examination in a given course within one year.

The student will receive credit, to be recorded as S (Satisfactory) on the academic record, upon demonstrating the development of the abilities and attitudes of students who have taken the course and upon passing the examination with a minimum equivalent grade of C. Examination results judged inadequate will be recorded as NC (No Credit) on the student's academic record. Neither S nor NC grades will be used in computing the grade point average.

Limitations on Nontraditional Credit: CLEP, IEP, Military Service, Special Examinations (Proficiency or Challenge Examinations), Competency Based Programs, ACT-PEP (Nursing majors only).

The maximum undergraduate credit that may be earned by these means is 60 semester hours. The limit for special or nontraditional credit is 30 hours for any one of these categories. Normally, nontraditional credit will not apply toward the last 30 hours of residency; however, students who have completed 30 hours of traditional course work at UTC and have not yet attempted the last 30 hours may petition to apply a maximum of 15 hours of these types of credit toward the last 30 hours. Application for IEP credit must be initiated no later than the semester preceding graduation.

Except for credit by special examination (undergraduate) most credit earned by these nontraditional means is elective. Exceptions to this principle may be made only with the written approval of the respective departments, indicating specifically the amount and type of credit to be applied to a major degree program.

The University residency requirements will change effective Fall 2000. Questions regarding the changes in specific hours should be directed to the Director or Associate Director of Records and Registration.

Military Service Credit

The University may grant credit for military science to students with six or more months of honorable active service in the armed services of the United States or in a service academy. A total of 30 semester hours of elective credit, including basic military service, may be accepted from the Community College of the Air Force. University policy permits and encourages granting credit for appropriate educational experience in the armed services in accordance with their evaluation in the American Council on Education's 1986 Guide to the Evaluation of Education Experiences in the Armed Services or by the Commission on the Accreditation of Service Experiences evaluation service. Veterans requesting military service credit should submit a copy of their DD Form 214 to the Records Office for evaluation. The University Tennessee at Chattanooga is a member of Servicemembers Opportunity Colleges.

International Education Program

UTC offers a range of opportunities to study abroad while earning academic credit. Through the university's membership in the International Student Exchange Program (ISEP) and the council on International Educational Exchange (CIEE) UTC students may participate in special exchange programs of a semester or more throughout most of the world UTC's membership in uSe Cooperative Center for Study in Britain (CCSB) allows our students study opportunities ranging from two weeks to a full semester in Australia Britain Ireland and Scotland taught by faculty from UTC and other consortium universities. UTC also has bilateral exchange agreements that allow our students to spend one or two semesters at Masaryk University in Brno Czech Republic and Haifa University in Israel. Other opportunities are available.

Students interested in study abroad are encouraged to contact the UTC Office of International Education by visiting 233 University Center or calling (423) 755-4735.

STUDENT FINANCIAL AID

In the belief that educational opportunities of qualified students should not be controlled by their financial resources, The University of Tennessee at Chattanooga offers a comprehensive program of student financial assistance. UTC uses a variety of resources to assist students who otherwise might find the costs of a college education prohibitive. Through federal, state, and university financial programs a student may receive one or more different types of assistance to cover educational costs.

There are four basic types of financial aid for UTC students: scholarships, grants, loans, and part-time employment. These are awarded individually or in combination, depending on the student's financial need.

Financial need is the difference between the student's cost of attendance at the University and the family's computed contribution to that cost. To assist in determining the student's financial need, the University uses the needs analysis system of the U.S. Department of Education. Through the use of the Free *Application for Federal Student Aid* (FAFSA), the Financial Aid Office determines the amount the student and the student's family can be expected to contribute toward meeting educational expenses. A student's financial need is then met with the various types of financial aid. The Free Application *for Federal* Student Aid is available in the UTC Financial Aid Office or a high school's guidance counselor's office.

Scholarships

The University of Tennessee at Chattanooga scholarship program for new and currently enrolled students is made possible through funds provided by the University, outside foundations, estates, private businesses, civic groups, individuals, and alumni.

Most scholarships are awarded to students who demonstrate strong academic achievement and proven need for financial assistance. There is, however, a number of scholarships based solely on academic achievement. Unless otherwise stated, to compete for any scholarship a student currently enrolled at UTC, or a transfer student, must submit a UTC *Application for Scholarship.* First-time freshmen may apply via the *Application for Undergradu' ate Admissions and Academic Scholarships.*

The Financial Aid Office must receive these forms by March 1.

The following scholarship programs will be in effective for students entering fall 1999.

University Honors Program Scholars

Each year 20 outstanding freshmen entering the University Honors Program are selected to receive four-year scholarships worth between $4,000 and $5,700 a year. The selection of these scholars, based on their attributes of scholarship, service, and leadership, is made by the faculty and staff of the University Honors Program in consultation with the Office of Financial Aid. Applicants must file both a regular application for admission to the University and a special application for admission to the UHON Program by December 31 of the applicant's senior year in the high school. Both applications should be sent directly to the UHON Program.

For more information and how to qualify for UHON admissions, see page 35. The following endowed funds support the program:

William E. Brock Jr. *Scholarship:* Established in 1979 by University of Chattanooga Foundation in honor of William J. Brock Jr., a long-time member of the UC Board of Trustees.

Paul Kobkntz Manorial Scholarship: Established in 1990 through a bequest from Abe J. Koblentz as a memorial to his deceased son, in order to provide scholarships for deserving students.

Dorothea *Woods Obear Scholarship:* Established in 1990 by Chancellor Frederick Obear in memory of his mother who had a strong interest in the University and, in particular, its honors programs. The scholarship goes to a student in the University Honors Program.

Vasconez & Donovan Scholarship: Established in 1994 by James M. Donovan, a UTC Brock Scholar graduate of the Class of 1977. The scholarship, in memory of his friend Jorge Vasconez, is for students in the Honors Program.

Roberta M. *"Bobbie" Yates Scholarship:* Established in 1998 with a gift from the estate of her husband, Arthur E. Yates, an alumnus of UT and president of the Yates Bleachery Company of Flintstone, Ga., for University Honors Students with financial need.

Chancellor's and Provost's Scholars

First-time freshmen who present certain minimum high school grade point averages and ACT or SAT scores are eligible for scholarship considerations. Scholarships are renewed for up to four years based on the student's academic performance and the funds available. Approximately 160 awards are available each year in the Chancellor's and Provost's Scholars programs combined. Recipients are determined by the UTC Scholarships Committee.

Chancellor's Scholars

First-time freshmen who are admitted by February 1 with a 4.0 GPA and a 31 ACT (1360 on SAT) will be considered for Chancellor's Scholarships, an annually renewable award of $5,000.

Provost's Scholars

First-time freshmen who are admitted by February 1 with a 3.5 GPA and 26 ACT (1170 SAT) will be considered for a $2,500 annually renewable award.

The following endowments are used to support the Chancellor's and Provost's Scholars Programs:

Julius Ochs Adler Scholarship: Established in July 1956 by an anonymous donor in memory of the distinguished citizen who was associated with Adolph S. Ochs in the management of The *Chattanooga Times.*

Alumni Centennial *Scholarships:* Established during the Centennial Campaign, four area scholarship endowments were funded by friends and alumni of UTC living in the Riverview and Lookout Mountain residential sections of Chattanooga and in both Nashville and Cleveland. The Cleveland scholarship was named in memory of Dickie Norton, UTC alumnus, who served as chair of the effort before his death in 1988. Preference for each scholarship will be given to students residing in the particular area.

Marirose Arendak Scholarship: Established in 1990 through the estate of Miss Arendale, a 1952 history graduate, and former economics professor at Chattanooga State Technical Community College.

Creed F. Bates *Scholarship:* Established in 1976 by more than 300 individual gifts from friends, former students, and citizens of the Chattanooga community in honor of Creed Fletcher Bates, student, teacher, principal, University trustee, and community leader, to be awarded annually to a qualified and deserving student from the local area.

Margaret Whiteside Buhrman Scholarship: Established in 1978 by friends in honor and recognition of her 46 years of distinguished service to the students, faculty, and staff of the University, for deserving students wishing to attend UTC with preference for students majoring in English.

Cyril C. *and Imogen* H. Burgher *Scholarship:* Established in 1991 through the estate of Mrs. Brooks Burgner in honor of her late husband for the benefit of worthy and deserving graduates of Tyner High School where Mr. Burgner served for many years as principal.

Campbell and Associates Scholarships: Established in 1987 as a centennial gift by John F. Germ, president and chief executive officer of Campbell and Associates, Engineering Consultants. Germ, a UTK graduate, has served on UTC's Chancellor's Roundtable and was involved in the design and construction of UTC's Arena and the Fine Arts Center.

Edith White Cassell Memorial Scholarship: Established in 1996 by Florence White Taylor in memory of her sister, Class of 1935 alumna Edith Cassell, who attented the University of Chattanooga and attained financial assistance through the help of President Alexander Guerry. Edith Cassell majored in German and worked for many years for the Tennessee Valley Authority.

Chattanooga Coke and Chemical Scholarship: Established in 1979 during the Tennessee Tomorrow Campaign in celebration of the company's 60th year of operation. The award goes to a qualified undergraduate student.

Walter W. Colby Memorial Scholarships: Established in 1982 by Benjamin W. Colby, a UC alumnus, in memory of his father, an early resident of Walden's Ridge (1878). Needy and worthy students from the Hamilton and Sequatchie County areas of Walden's Ridge are given preference.

Culpepper Family Scholarship: Established in 1997 by Cecil Culpepper in appreciation for the financial assistance he received which enabled him to attend the University of Chattanooga on the GI Bill and in order to make a similar opportunity available to other students. Two of the Culpepper children are UTC graduates: Steven Ward Culpepper, Class of 1978, and Mary Alice Culpepper, Class of 1979. Preference for the award goes to students majoring in business or history.

Joe and Rachel Decosimo Scholarships in Business: Established in 1997 by Toby and Brenda McKenzie of McKenzie Development Corporation of Cleveland in honor of their friends and colleagues Joe and Rachel Decosimo for the role played by the Decosimos in their success personally and professionally. The awards go to students majoring in business.

John W. Evans Scholarship: Established in 1966 by the will of John W. Evans, retired Chattanooga realtor, who bequeathed his entire estate to the University for the benefit of "needy and deserving students."

Carl Gibson Scholarship: Established in 1994 by the estate of Carl Gibson, University of Chattanooga, Class of 1934, and former owner of Ruby Falls. The scholarship is based on academic performance and financial need.

John E. and Claudia F. Gilbreath Scholarship in Memory of Kather' ine Frazier: Established in 1971 by Mrs. Gilbreath for deserving male students in memory of her husband and her sister, two of the founders of the Chattanooga Federal Savings and Loan Association, both prominent business and civic leaders who died in 1969. Mr. and Mrs. Gilbreath graduated from the University of Tennessee, Knoxville.

Douglas Chamberlain Griffith Memorial Scholarship: Established in 1984 by Mrs. Robert H. Griffith in memory of her son (1941 - 1984). A graduate of the University of Chattanooga, he was a captain in the U.S. Air Force and a professional photographer. The scholarship award is based on student need.

John L. Hutcheson Jr. Memorial Scholarship: Established in 1983 by the Rossville Memorial Center and W. Frank Hutcheson in memory of John L. Hutcheson Jr., longtime member of the board of the University of Chattanooga and a prominent citizen of North Georgia. The scholarship is awarded to students who demonstrate successful academic performance. Preference is given to students from specific North Georgia counties and Tiftonia.

David McKendrie Key Scholarship: Established by Sarah Key Patten in memory of her father, Postmaster General of the United States, U.S.Senator, Federal Judge, and one of the founders of the University.

Gene E. *Kistler Scholarship:* Established in 1994 through a bequest from the estate of Dr. Kistler, a long-time Chattanooga physician and general surgeon, as an expression of his appreciation for his community and admiration for the University. Kistler had been chief of surgery for Erlanger and T. C. Thompson Children's hospitals. This award goes to students with declared pre-medical majors.

David Ardell *Knauff Memorial Scholarship:* Established in 1990 by Major Charles H. Knauff, U.S.A. Ret., in honor of his son, a cum laude graduate of UTC in 1977, who died in Atlanta where he worked for CBS Television Productions. First consideration given to students from Ooltewah High School.

Lovemans Marketing Scholarship: Established in 1988 as a Centennial gift to the University by the donor company under the leadership of its late president James L. Moore Jr. The Moore family and Lovemans Department Store have been economic and cultural leaders in Chattanooga with a long history of involvement with the University.

Toby and Brenda McKenzie Education Scholarships: Established in 1997 by entrepreneurs Toby and Brenda McKenzie of McKenzie Development Corporation of Cleveland in appreciation for the great influence of good teachers in their formative years. The award is meant to encourage and assist students preparing to become educators.

Herschel *W. Nation Memorial Scholarship:* Established in 1996 by William, Jeffrey, and Michael Nation, Lou Nation, and Ray L. Nation, the sons, widow, and brother respectively of Herschel W. Nation in his honor. A graduate of the Class of 1947, Nation served as student radio announcer at the University of Chattanooga and after a career in radio founded and became president of Gateway Hosiery Mills. The award is divided between students majoring in English and communication.

Charles A. Noone *Scholarship:* Established in 1961, and enhanced at her death in 1980, by Mrs. Noone in memory of her husband, a prominent lawyer who practiced in Chattanooga for many years and was the father of an alumnus.

Dickie Norton Memorial *Scholarship:* Named in memory of Dickie Norton, a UTC alumnus who served as chair of the effort to endow a scholarship for Cleveland-area students before his death in 1988. Preference is given to a student from Cleveland, Tenn.

Jenks Fain Parker Memorial Scholarship: Established in 1984 by the family of Jenks Fain Parker. The scholarship is awarded to deserving students in the School of Engineering as recommended by UTC Scholarship Committee.

Elizabeth Bryan Patten *Scholarships:* Established in 1972 by businessman Z. Cartter Patten in honor of his wife, active civic, welfare, and religious leader of her community.

Sarah Key Patten Scholarship: Established in 1955 by Z. Cartter Patten in honor of his mother, one of Chattanooga's most beloved matrons, daughter, and mother of University trustees.

P. Robert Philp *Scholarship:* Established in 1997 with ongoing gifts by Katherine Philp Fowler, in memory of her late husband who was president of First Tennessee Bank, Chattanooga, and a trustess of the UC Foundation. The award gives preference to employees of the bank and their children.

Katharine E. Pryor *Scholarships:* Established through a bequest from the estate of Miss Pryor, a 1936 alumna and longtime teacher at Chattanooga High School, who died in 1992. Scholarship recipients shall be graduates of the Chattanooga or Hamilton County Public School Systems.

Alex Radin American Public Power Association Scholarship Fund: Friends and colleagues of alumnus Alex Radin established in 1986 an endowed scholarship honoring Radin, the distinguished executive director of the American Public Power Association, a national organization headquartered in Washington, D.C., which represents more than 1,750 municipal and other local publicly owned electric utilities in 49 states and several foreign countries.

Henry V. *and Judith Talley Secor Scholarship:* Established in 1996 with a gift from Henry V. Secor, Class of 1955, and Judith Talley Secor, who attended the University of Chattanooga in 1952-53 and graduated from the University of North Carolina. Former Chattanoogans, the couple reside in Midlothian, Va. The awards are based on successful academic performance and financial need.

Dr. Roy Stinnett Memorial *Scholarship:* Established in 1994 by the Stinnett family as a memorial to Dr. Stinnett who was an assistant football coach and later dean of the College of Education and Applied Professional Studies at UTC. The scholarship is for students who are in the education program.

Horace Traylor Scholarship: Established in 1988 to honor Dr. Horace Traylor, former president of Chattanooga City/Zion College at the time of the merger with UT and UC and the first minority graduate of UTC.

James Edward Walker Jr. Memorial Scholarship: Established through a charitable bequest from the estate of Sarah Burrell Walker, who died in 1994, in honor of her late husband. The award goes to students majoring in English or French.

Howard *L. Westbrook Scholarship:* Established in 1993 by alumnus Howard L. Westbrook of Fairhope, Al., Class of 1958, for students studying science or engineering.

Fred *Westcott Scholarship:* Established in 1985 as a result of a bequest from Mr. Fred Westcott, a pioneer in the Dalton, Georgia, carpet industry, for general scholarships.

Gertrude Jackson Witt *Scholarship:* Endowed in 1997 by a bequest from Gertrude Witt Hellman, Class of 1938. The award goes to students with demonstrated academic success and financial need with preference to single parents and students with siblings attending college.

Deans' Scholars

In addition to the University's other scholarship programs, African-American residents of Tennessee who are first-time freshmen and present certain minimum high school grade point averages and ACT or SAT scores are eligible for consideration for Deans' Scholarships. First-time freshmen who are admitted by February 1 and have a 3.0 GPA and a 17 ACT (810 SAT) will be considered for a $2,500 annual award. Applicants with a 3.5 GPA and a 21 ACT (980 SAT) will be considered for an annually renewable award of $3,500. Scholarships are renewed'for up to four years based on the student's academic performance and the funds available. Approximately 120 awards are available each year. Recipients are determined by the UTC Scholarships Committee. Students may not receive both a Deans' Scholarship and a Chancellor' or Provost's Scholarship.

UT Alumni Scholars

Tennessee high school valedictorians who enroll at UTC become UT Alumni Scholars, which carry an award of $1,000 annually. These scholarships are awarded by the UT National Alumni Association, which also sponsors the:

Andrew D. Holt Scholarships: Established in 1971 by the UT National Alumni Association in honor of Dr. Andrew P. Holt, president of UT from 1959 to 1970. These awards are available on every UT Campus. Four Chattanooga undergraduate students are allocated four-year Holt Scholarships annually based on academic merit.

Department Scholars

Department Scholars are those who receive prizes, grants, and scholarships associated with a particular department or academic program. All recipients are selected by the faculty of the given department, usually on the basis of demonstrated merit or talent.

Marvin *L. Anthony Scholarship:* Established in 1965 by Chicago banker, Marvin L. Anthony, a 1926 chemistry graduate and Phi Delta Sigma member, for students of business or chemistry.

Clapton Arnold Teacher Training Scholarships: Established in 1965 by Clayton Arnold, who served as postmaster at Thompson Station, Tenn., for many years and had a strong interest in the education of teachers. Arnold, who died in 1987, gave the University gifts in excess of $1 million and felt that his gifts would do the most good if made for the training of teachers in public education. UTC receives a portion of the proceeds from the Arnold Endowment for students in the College of Education and Applied Professional Studies.

Authors and Artists Club *Scholarship:* Established in 1988 by the Authors and Artists Club to be awarded on a rotating basis for students with a demonstrated interest in creative writing, art, music, and theatre. The fund was enhanced in 1994 to provide yearly awards in each discipline.

Steve Boras Memorial Scholarship: Established in 1982 by the family of Steve Baras, a graduate of UTC and a past member of the varsity tennis team, for students who are members of the tennis team or majoring in business.

Seryl M- Berger *Scholarship:* Established in 1984 by Monroe H. Berger, Gertrude Weitzman, Hope Ruslin-Berger, Mitchell W. Berger, James L. Berger, and Lloyd C. Berger in honor of their mother. The award goes to an education major with interest in teaching children with exceptional ability.

Dr. *Jeffrey* L. Brown *Memorial Scholarship:* Established in 1981 by friends and family of Dr. Jeffrey L. Brown who at the time of his death was associate professor of sociology and anthropology and director of the University's Institute of Archaeology. The scholarship is based on merit and is given to a student who will further advance the academic ideals of conservation and preservation of man's past.

Dr. Wilbur *K.* Butts Memorial *Scholarships:* Established in 1993 through a bequest from the estate of Alfred M. Butts in honor of his late brother, who was a faculty member for many years in the department of biology. The awards go to entering freshmen with demonstrated academic performance who wish to major in biological science.

Gitik Queener Carter Memorial Scholarship: Established in 1979 by Professor Emeritus Roland D. Carter and his children, Roland D. Carter Jr. and Yvonne Carter Gardenhire, in memory of Gillie Queener Carter who taught in the Chattanooga public school system for many years, to be awarded to a student majoring in special education.

Chattanooga Area Personnel *Association Scholarship:* Established in 1996 by the members of the Chattanooga Area Personnel Association, one half of the award goes to a graduate or undergraduate student majoring in human resource management in the School of Business and one half to a graduate student in industrial organizational psychology in the College of Arts and Sciences.

Dr. *Elizabeth L. Dalton/Kappa Delta Pi Scholarship:* Established - in 1996 by William J. Overend, representing the children of Dr. Dalton: Barbara Dalton Warner, David Landress Dalton, Anna Dalton Overend, and Robert Sethur Dalton, and othe relatives, colleagues, and friends as a memorial to Elizabeth Dalton, who was a professor at UTC for 12 years, following a 30-year career as a teacher and administrator in the Chattanooga Public Schools. At UTC, she was named Alumni Distinguished Service Professor. She was an alumna of the University of Chattanooga and founding sponsor of Kappa Delta Pi at UTC. She died in 1996. The award goes to students who are declared majors in education who desire to become teachers-

Harry B. *Deuberry Physics Scholarship:* Established in 1985 by Deuberry, president of the class of 1930, to encourage physics majors in assisting faculty with projects.

Lillian B. Feinstein Art *Scholarship:* Established in 1980 in honor of Lillian B. Feinstein, sculptor, patron of the arts, and longtime supporter of the Hunter Museum and the University Art Department. The scholarship is awarded annually to a student majoring in art.

James B. Frost and Company, CPA, Scholarship: Established in 1984 by Frost, head of a local accounting firm and top accounting graduate of the Class of 1956. Preference given to accounting majors.

Thomas Geraghty Scholarship: Established in 1990 by friends and colleagues of Geraghty, who joined the faculty in 1960 as assistant professor of economics, later serving as director of the computer center, and holding the Clark Chair of Economics when he retired. Preference for this scholarship goes to students majoring in business.

Sharon *Gilley Grant Memorial Scholarship:* Established in 1984 by Claude and Mildred Gilley in memory of their daughter, an honor graduate of UTC. This scholarship is awarded on a competitive basis in either opera or voice.

Friends *of Doug Griffith Scholarship:* Established in 1985 by WendellBurns and other friends and colleagues. The award is based on need with preference given to graphic design majors.

Nita T. and Irvine *W. Grote Scholarships:* Established in 1976 by the Chemistry Department in memory of Dr. and Mrs. Irvine W. Grote. Grote served as a distinguished member of the chemistry faculty from 1931-1969. Endowment income annually provides scholarships for 12 outstanding chemistry majors.

Wayne Hannah/Chattanooga Advertising Federation Scholarship in Graphic Design: Established in 1985 in memory of Wayne Hannah, a noted radio and television broadcaster in Chattanooga. The scholarship is awarded by the Art Department with the Chattanooga Advertising Federation to a student entering the sophomore year as a major in graphic design.

Arlie E. Herron *Scholarship:* An endowed scholarship for English majors established in 1999 to honor Arlie E. Herron, former professor and head of the Department of English. Herron, who retired in 1998 after 39 years at UTC, is an authority on East Indian culture and American Southern literature. He was instrumental in establishing the highly acclaimed Chattanoga Conference on Southern Literature.

UTC *History Department Scholarship:* Established by Dr. Ronald Moore, Dr. James Ward, Dr. Larry Ingle, Dr. Russell Linnemann, Dr. Tyler Deierhoi, Dr. Richard Rice, Dr. James Russell, Dr. William Wright, and Elke Lawson, 1985-86 faculty members of the history department, to perpetuate the century of high standards of their discipline at this institution, for history majors.

Hoover-N*ofsinger Scholarship:* Established in 1998 by Dr. Sara Hoover and Ms. Norma Nofsinger, adult students who wanted to assist other students majoring in geology. The award is based on successful academic performance or financial need.

Dr. Karel Hujer Scholarship: Established in 1990 through a bequest from the estate of Harriet Hunt Hujer in memory of her husband Dr. Karel Hujer, an internationally known astronomer on the faculty of UTC, for students majoring in astronomy, physics, or mathematics.

Clarence T. Jones Prize in Astronomy: This scholarship was funded in 1989 through the estate of Arthur H. and Mary Louise Jones in honor of his father. The prize goes to an outstanding physics student who is a rising senior and has excelled in astronomy.

Mr. *& Mrs. Paul J. Kinser Scholarship:* Established in 1986 by Paul J. Kinser, University of Tennessee trustee, for juniors or seniors enrolled in the industrial engineering program with a 3.0 G.P.A. or better and financial need'.

Norbert Koch Scholarships: Two funds established in 1979 by gifts from former students, colleagues, and citizens of the Chattanooga community in honor of Dr. Norbert Koch, professor of engineering, on the occasion of his retirement after 32 years of dedicated service to the University to be awarded annually to a qualified and deserving engineering student.

Joyce Litchford Scholarships: Established in 1976 by Dr. R. Gary Litchford, a member of the the biology faculty, in memory of his wife, for scholarships to a senior pre-medical student and to a junior or senior member of the wrestling team.

Christine B. *Little Nursing Scholarship:* Established in 1997 by Mrs. Little, Class of 1982, who returned to school as an adult and received her nursing degree at age 57, this award gives preference to adult junior and senior undergraduate women returning to school to complete degree requirements in nursing.

Mr. *and* Mrs. Charles *W. Loftin Scholarships:* Established in 1983 by Amy Loftin in memory of her parents, Mr. and Mrs. Charles W. Loftin. The scholarships are awarded to outstanding students from the Department of Theatre and Speech.

Winston L. Massey *Scholarship:* Established in 1973 by the University of Chattanooga Foundation in honor of Massey, Guerry professor of mathematics, on the occasion of his retirement after 40 years of service to his alma mater, for an outstanding upperclassman majoring in mathematics.

Dr. *William* H. *Masterson Memorial Scholarship:* Established by the family of the eleventh president of the University of Chattanooga and first chancellor of UTC, this scholarship honors Dr. William H. Masterson who died March 3,1983.

Mary Alice McBrayer Memorial *Scholarship:* Established in 1993 by Brig. Gen. Madison M. McBrayer (Retired, U.S. Air Force) class of 1941, and his three sons: Gregory S., Class of 1969, Kenneth and Steven, in honor of their wife and mother, who died in 1992. The award goes to sophomores or above majoring in engineering.

Amy Mildram *Scholarship:* Established for seniors in physical therapy in 1991 by friends and colleagues in honor of the widow of former UTC professor of philosophy and religion, Dr. Robert Mildram. Amy Mildram is a retired physical therapist with T.C. Thompson Children's Hospital and was an advocate of bringing a physical therapy program to UTC.

Burkett Miller *Scholarships:* Established in 1954 by a generous gift from Miller, a leading Chattanooga attorney and philanthropist, to aid needy and worthy students.

Miller/Schwartz *Scholarship:* Established in June 1991 by Eleanor Miller Schwartz, member of the Chancellor's Roundtable, and her husband, Dr. Harold Schwartz, in honor of their parents, for students majoring in special education.

School of Nursing Honors Scholarship: Established in 1996 in recognition of the 25 th anniversary of the UTC School of Nursing and as a 21st Century Campaign gift to the University by the nursing faculty, staff and other friends of the School of Nursing, the award gives preference to a minor student or a student who demonstrates financial need and has maintained a 3.5 GPA and above average clinical evaluations at the junior and senior level.

Paramedical Careers Scholarship of the Women's Auxiliary to the Chattanooga and Hamilton County Medical *Society, Inc.:* Endowed in 1987 after many years of annual funding, this scholarship provides financial assistance for students pursuing health-related careers.

Ruth Clark Perry Scholarship: Established in 1969 by Mrs.,Leonora Miller Seids of Perry, Okla.; in memory of her friend, UC dean of women from 1924 to 1943 and professor of mathematics from 1922 until her death in 1955, to be awarded to an upperclasswoman majoring in mathematics.

Physical Therapy Alumni *Scholarship:* Established in 1994 by the faculty, friends, and alumni of the physical therapy program for students in the physical therapy program.

Murray *Raney Chemistry Scholarship:* Established in 1989 by W.R. Grace and Company in memory of Murray Raney,' who died in 1966 and was a distinguished Chattanoogan who gained worldwide fame among chemists for his invention of metal catalysts, the basis for the continuing activity of W.R. Grace and Company. To stimulate creative endeavors, this award goes to a chemistry major.

Dr. E.E. *Reismanjr. Memorial Nursing Scholarship:* Established in 1981 under the terms of the will of Dr. Reisrrtan, well-known Chattanooga physician and long-time supporter of the University, and augmented at his death by a memorial gift from his family. The scholarship is to be awarded annually to an outstanding nursing student.

Arthur *Rivituso Scholarship in Piano:* Established in 1991 as a memorial to Arthur W. Rivituso who retired and later died in 1991 after 22 years as a professor of piano and artist-in-residence, by his niece Carol Smith and other friends, colleagues and relatives, for advanced piano students.

Dr. J. Eric *Schonblom Scholarship:* Established in 1997 by friends, colleagues, and family of Dr. Schonblom in honor of his retirement from the faculty of the College of Engineering and Computer Science. Dr. Schonblom held the title of UC Foundation Professor. The awards go to students majoring in engineering.

EdmoniaJ. Simmons Endowed Scholarship in Music: Established in 1991 by friends arid colleagues of Mrs. Simmons, a distinguished musician and community leader for music or music education majors with preference given to minority students.

Carol *Smith Sanders Memorial Scholarship:* Established in 1991 by friends, colleagues and family of Carol Smith Sanders, daughter of Judge Dixie Smith, '42, who earned her master's degree from UTC and at the time of her death was a behavior management specialist in Hamilton County Schools. This award goes to students in the master's program in special education.

Calvin U. Smith Jr./G. H. Miller *Smith Scholarships:* Established in 1965 by Mr. and Mrs. George Blackwell Smith in honor of their nephew, Calvin U. Smith Jr. (1940-1963), and of their son, G.H. Miller Smith (1921-1944), both gallant young Chattanoogans who died in the service of the armed forces of their country.

Stanley Speal Memorial Scholarship: Established in 1994 by members of The Chattanooga Area Psychological Association (CPA) in memory of their colleague, the late Stanley Speal, Ph.D., for his professional, academic, and civic contributions to Chattanooga. Speal served on the psychology faculty at UTC from 1975-77 and was the first president of CPA. The award goes to a psychology major with the class rank of junior or above who has intentions of pursuing a graduate degree.

DeForest Spencer Scholarship: A 1915 graduate of the University of Chattanooga, DeForest Spencer established this scholarship endowment in 1986 to assist a needy student pursuing an undergraduate B.A. degree.

Iphigene Ochs Sulzberger Scholarship in American History: This scholarship, funded in 1986 by Ruth Sulzberger Holmberg in honor of her mother, Iphigene Ochs Sulzberger, daughter of Adolph Ochs, former publisher of the *Chattanooga Times* and founder of the *New York Times*, provides scholarships for deserving full or part-time students working toward a degree in American History or a related area.

Dr. *Charles Robert Thomas Scholarship:* Established under terms of the will of Dr. Thomas, well-loved Chattanooga physician who died in 1968, to assist needy students in pre-medicine.

Thomasson Premedical Scholarship: Established in 1979 by Mr. and Mrs. Eugene M. Thomasson to be awarded to a qualified and deserving undergraduate student who is pursuing premedical studies.

LaVeme Thompson Memorial Scholarship: Established in 1987 by Dr. Jack Thompson, professor and head of computer science, and his children in memory of his wife, a former UTC faculty member. Preference is given to female students majoring in computer science.

Jill Wheeler Memorial Scholarship: Established as a memorial to Jill Wheeler, class of 1979, UTC School of Nursing, who was killed in an automobile accident in 1980. This endowment is funded by Jill's parents, Mr. and Mrs. Jack M. Wheeler, and other friends and colleagues. The award goes to a senior nursing student.

Special Qualification Scholars

Listed here are scholarships awarded by the University to students with special qualifications. These awards are typically given to those who live in a specific area, belong to a minority group, or are the children of the employees of a particular company.

VTC Alumni Council Scholarship: Established in 1995 by members of the UTC Alumni Council, other alumni, and friends of the University. The scholarship is awarded to a junior or senior who holds a 3.0 GPA and has demonstrated commitment to community or University service. Preference may be given to the dependent child of a UTC graduate.

James William *(Bill) Barker Scholarship:* Established in 1960 by friends of fraternity brothers of the Pi Kappa Alpha who died four years after his graduation in 1949.

Alvin G. *and Sally M. Beaman Scholarships:* Established in 1990 by the Beamans, Nashvillians representing the Beaman Companies, at three UT campuses: Chattanooga, Knoxville, and Martin. Preference is given to the children or grandchildren of Beaman Bottling Company or Shelbyville Bottling employees or former employees. Awards are based on academic achievement and financial need.

M.W. Brabham Scholarship: Established in 1963 by the Brabham-Martin Bible Class of the Centenary Methodist Church in memory of its esteemed member, the longtime executive secretary of the Chattanooga Community Chest.

David M. Brammer Memorial Scholarship: Established in the name of the Sigma Chi fraternity brother who died in 1983, this scholarship was established with the contributions of friends and family and is available to any Sigma Chi fraternity member who holds a 3.0 GPA and who gives sufficient service to the local fraternity.

Miriam Ash Brown Memorial *Scholarship:* Established in 1997 by the estate of Miriam Ash Brown in honor of her grandchiildren: Matthew Harrison Brown, Benton Andrew Savage, Louise Brown Botts, and Emily Lane Savage. Mrs. Brown's husband, Kenneth H. Brown, served on the UT Development Council, and a daughter and son-in-law were gradutes. Kenneth Brown and his father founded Brown Stove Works Inc. The award goes to juniors in the College of Business at either the Chattanooga or Knoxville campus who are residents of Bradley County and who have transferred from Cleveland State Community College, where the Browns' son-in-law was a member of the original faculty in business.

Buster *Brown Apparel Scholarships:* Established in 1990 by Buster Brown Apparel Inc. in order to provide scholarship assistance for employees of Buster Brown and Weather Tamer Inc. and their children.

Broun *Stove Works Inc. Scholarships:* Established in 1997 by Brown Stove Works Inc. of Cleveland in honor of its employees and in appreciation for their efforts in making these awards possible. The awards give first preference to employees and their descendants or transfer students from Cleveland State Community College and then residents of Bradley County, followed by Meigs, Polk, or McMinn counties.

St. Augustine "Augie" *Cranford, Jr. Memorial Scholarship:* Established in 1994 as a memorial to Augie Cranford, director of the UTC Arena security at the time of his death, for minority students from the Chattanooga area majoring in criminal justice or education. /

Louise G. Currey Environmental *Studies Scholarship:* Established in 1990 by her children, Bradley Currey Jr., Louise Nicholls, Frederick Currey, Hal Currey, and Robert Currey, and other friends and family. Mrs. Currey was one of the founders and a life trustee of the Nature Conservancy.

John B. *and Becky R. Dethero Scholarship:* Established in 1989 by Dethero, class of 1962, and his wife, residents of Cleveland, Tenn., in their desire to provide educational opportunities to needy students. Preference is given to students who have participated in Career Beginnings at UTC.

Thomas O. Duff Scholarship: Established in 1956 by Thomas Duff, business and civic leader, patron and trustee of the University, to be augmented at his death by gifts from family and friends. Preference is to be given to children of pharmacists who want to pursue careers in pharmacy.

Executive Women International (ASIST)IJean Bradford Memorial Scholarship: Established in 1996 by the Chattanooga Chapter of Executive Women International (ASIST) in memory of former member Jean (Mrs. James) Bradford, who at the time of her death in December 1995 was die administrative aide of Chancellor Frederick W. Obear, this award assists women, particulary displaced homemakers and single mothers, returning to school in order to enhance their career opportunities.

Falk, Traylor, & Davis (FTD) Minority Scholarship: Established in 1993 by Grover Davis, a former board member and alumnus of Chattanooga City College, in honor of Dr. Horace Traylor, president of Chattanooga City/Zion College at the time of the merger with UT and UC and the first minority graduate of UTC, and the late Mary Weidner Falk, one of the founders of Zion College in 1949, where she served as registrar and business manager. Preference for the award goes to minority students who accept a moral obligation to repay the award to the endowment.

Fincannon *Scholarship:* Established in 1984 by Al Fincannon. The scholarship is awarded upon the recommendation of the UTC Scholarship Committee with preference given to widowed or previously married women.

W. Max and Margaret Finley Scholarship: UC alumnus W. Max Finley and his wife Margaret established this fund in 1986 for the benefit of adult students entering pr re-entering college as full- or part-time students working toward either undergraduate or graduate degrees. Preference is given to single parents, female students, students with declared majors in business, and students from Hamilton County and the greater Chattanooga area, including Georgia and northeast Alabama.

Asa Van Frazier Memorial *Scholarship:* Established in 1993 by Pauline W. Frazier and William Frazier in memory of their husband and father, who spent 37 years in the teaching profession in Hamilton Country, retiring in 1975 as principal of Lakeside Elementary. Preference goes to students who are interested in teaching and who attend St. James A.M.E Church.

Douglas Gumerman/Heil *Trailer International Scholarship:* Established in 1995 by the Heil Trailer Company in memory of their gifted salesman Doug Gumerman, this scholarship is for children of Heil Trailer Company employees.

Eleanor M. *Hodges Scholarship:* Established in 1988 by the president and secretary of Lawson Electric, Walter P. Hodges, in honor of his wife, Eleanor. The Hodgeses are parents of a 1978 UTC graduate. All other qualifications and considerations, academic and financial, being equal, first consideration for this award is given to graduates of East Ridge High School.

Ida Mae "Dutch" Holland Scholarship: Scholarship originally begun by John H. "Hank" May and Josten's of Takoma Park, Md., in 1980 was endowed in 1993 by members and friends of the Lambda Chi Alpha Fraternity Alumni Chapter in honor the Zeta Phi Zeta Chapter housemother for 35 years. The award goes to active members of the UTC chapter based on scholarship and need.

John Earlon Kerr *Scholarship:* Established in 1959 with a bequest from Lillian Webb Kerr, longtime East Lake Grammar School teacher, in memory of her son, a student at Vanderbilt University at the time of his death in 1915.

Leba and Moses Lebovitz Scholarships: Established in 1989 by Moses Lebovitz, UC Class of '28, charter member of the UC Foundation, and chairman of the board of CBL, Inc., one of the largest developers of shopping centers in the United States, with preference given to Jewish students. Enhanced in 1994 to include extra provision for exchange of students between UTC and the University of Haifa, Israel.

Lookout Post 1289 Veterans *of Foreign Wars Scholarship:* Endowed in 1986 by the Lookout Post 1289, Veterans of Foreign Wars, this scholarship is intended primarily for veterans returning to school, students in the ROTC program, or students whose patriotism is strong.

Dr. Littleton H. Mason *Memorial Scholarship:* Established in 1989 by his widow, Ruth, and other friends in memory of Mason, assistant dean of students. Preference given to minority students from low income families from Memphis.

Billy C. *Perry,* Jr. Memorial *Scholarship:* Established in 1990by Billy Perry's fellow UTC cheer leading squad members and advisor Betty Tucker, this scholarship is for entering freshmen who have been high school cheerleaders or team managers.

Sports Bam, Inc./Alex *Guerry* Memorial *Scholarships:* Established in 1991 by the stockholders and directors of the Sports Barn, Inc. to honor the founder and president of the Sports Barn, Inc. with preference going to students who are employees of the Sports Barn.

Mary Stan/ill Home *Economics 4'H Scholarship:* Established in 1996 with a bequest from Ms. Stanfill, extension home economics agent in Centerville, TN, this award is available to home economics or human ecology majors at any of the UT campuses on the basis of academic achievement, leadership, and participation in 4-H Club activities and 4-H home economics projects.

Wheland Foundry Environment *Scholarship:* Established in 1995 by Wheland Foundry for graduates of Chattanooga's Howard High School of Academics & Technology who major in environmental studies.

Athletic Scholarships

The University enjoys a number of endowed scholarships to support the students in its athletic programs. Awards are determined by the staff of the University's various athletic programs in accordance with the conditions of the scholarships listed below:

Thomas G. Bardett, Jr. *Scholarship:* Established in 1995 to honor Tommy Bartlett, UTC men's and women's tennis coach for many years, for student-athletes in the women's tennis program.

Morton *Neal Center Athletic Scholarship:* Established in 1978 by Center, a business and civic leader, to be awarded to a qualified and deserving student athlete.

Edgar M. *JoUey Athletic* Grant-In-Aid *Scholarship:* Established in 1994 by Charles B. Lebovitz and family and CBL & Associates in honor pf Mr. Jolley, a Moccasin athletic fan and alumnus on the occasion of his retirement. The award goes to a student athlete.

KeUey'Mayse Scholarship: Established in 1996 by Jack E. Kelley, preference for this award goes to a student athlete in the men's basketball program or to children of Mayse Construction Company employees.

T.R. McAfee Memorial Scholarship: Established in 1979 and enhanced starting in 1980 by friends who hosted an annual T.R. McAfee Golf Tournament to raise funds for an endowed golf scholarship in memory of T.R. McAfee Jr., former UTC student and member of the varsity golf team.

James W. Morgan Wrestling Scholarship: Established in 1996 by friends, family, students, and colleagues of Morgan to recognize his outstanding contributions to the wrestling program at UTC for which he served as coach from 1968 to 1984. Named "Coach of the Year" eight times, Morgan also led his wrestling Mocs to numerous championships. The award goes to to a team member who has demonstrated successful academic performance.

A.C. "Scrappy" Moore Athletic Scholarship: Established in 1986, Centennial year of the University, by Mrs. Helen F. Moore, widow of Moore, this scholarship is available to intercollegiate athletes in memory of the long-time University of Chattanooga football coach and popular local sports figure.

Scrappy Moore Memorial Scholarship: Established in 1971 by memorial gifts from family and friends of long-time, distinguished head football coach and athletic director A.C. "Scrappy" Moore Sr., who served the University from 1926-1971. Scholarship preference is given to a varsity football player who exemplifies the ideals of leadership, scholarship, and service.

Overmyer Athletic Scholarships: Established in 1969 by longtime trustee Donald H. Overmyer, class of 1930, and his wife, Ruth E. Overmyer, class of 1932, to provide a minimum of four scholarships to be divided among candidates for the varsity football and the varsity swimming teams as recommended by the head coaches. If there is no swimming team, members of the baseball team shall receive them, or if neither, they shall go to football.

U.G. *andWilliamE. Paschal Scholarships:* Established by William Ernest Paschal, class of 1914, retired Akron rubber executive, in memory of his father, the Rev. U.G. Paschal, class of 1896. The first scholarship was given in 1965 for physical education majors, the second in 1967 for students participating in varsity football.

William and Susan Pettway Gift to Athletics: Established with a gift from the estate of William D. Pettway Jr., who died in 1993. Pettway was a fan of intercollegiate athletic competition, an adilete, and trustee of the UC Foundation, and his family has a long history of involvement with the University. Preference for the award goes to varsity football players.

Lewis West Oehmig Golf Scholarship: Established in 1993 by the Westend Foundation as its final gift to UTC in honor of West for the purpose of endowing the two top positions on the golf team in the names of two nationally known Chattanooga golf champions, Lewis West Oehmig and Gibby Gilbert.

WoodrowWolford, Sr., Scholarship: Established in 1996 by James L. "Bucky" Wolford, alumnus and former football standout, in honor of his father, this award goes to a student athlete who is a member of the varsity football team with preference given to those who are running backs or defensive backs.

Grants

Federal Pell Grants

All undergraduate students applying for institutional assistance based on a financial need should apply for this federal grant program. Other forms of financial assistance will not be extended to a student until eligibility for the Pell Grant has been determined. To apply, the student submits the *Free Application for Federal Student Aid* to the U.S. Department of Education. Approximately six weeks after the Free Application *for Federal Student Aid* is mailed, the student should receive the *Student Aid Report.* Because the Student *Aid Report* indicates eligibility for Pell Grant and other federal aid, a copy must be on file in the Financial Aid Office before an award can be processed.

Pell Grant awards range from a maximum of $3,000 to a minimum of $400. The amount of the award is based on financial need and the number of hours enrolled. Regulations and provisions of the Pell Grant Program are subject to change by federal legislative action.

Federal Supplemental Educational Opportunity Grants

This is a program of federal grants available to entering freshman, transfer, and enrolled undergraduate students with high financial need as determined by the Free Application for Federal Student Aid. Awards range from $200 to $500.

Student Employment

The University participates in the Federal Work-Study Program administered by the U.S. Department of Education. To be eligible for the Federal Work-Study Program, a student must be accepted for admission or be in good standing if currently enrolled. A student's eligibility further depends upon the need for employment to defray college expenses. On-campus part-time work opportunities are available in the various departments, offices, and agencies of the University. Off-campus work in community service organizations may also be available through the Federal Community Service Learning Program. The Free *Application for Federal Student Aid* is required.

Employment opportunities provided under the institutional student employment program are offered to students who indicate a desire to work and who do not meet the financial need requirements for the Federal Work-Study Program. The UTC Placement and Student Employment Center maintains vacant position information for this type of on-campus student employment. Institutional work is funded by the University.

Part-time employment, handled by the Job Location and Development Program in the Financial Aid Office and the UTC Placement and Student Employment Center, is also available in private businesses, corporations, and industries in the Chattanooga area. To be eligible for this part-time employment, the student must meet the requirements established by the employing agency.

The Chattanooga Symphony offers an orchestral apprentice program for a limited number of qualified performers. Eligible students receive wages equal to the prevailing union contract. Interested students should contact the head of the music department.

Student Loans

Federal Robert Stafford Student Loans (Formerly Guaranteed **Student Loans)**

Subsidized Stafford loans may be available through banks, credit unions and savings and loan associations to help meet educational expenses. Students should contact their bank or the UTC Financial Aid Office to obtain a loan application. To establish need for these loans, students must file the Free Application *for Federal Student Aid.* To receive the loan, a student must be admitted to or in regular attendance and in good standing at the University and in good standing for financial aid. Interest on such loans is paid by the federal government while the student is in school. During the repayment period, which begins six months after graduation or withdrawal from UTC, new borrowers pay a variable simple interest. The maximum amount of a loan to an undergraduate in a 12-month period is $2,625 for freshmen, $3,500 for sophomores, $5,500 for juniors and seniors, and $8,500 per year for graduate study.

Students may also borrow through non-need-based Stafford Loan. The annual maximum amounts are the same as with the need based loans. These unsubsidized Stafford Loans require the student to be responsible for the interest during in-school and deferment periods. Total loans outstanding may not exceed $23,000 for the undergraduate or $138,500 for the undergraduate, graduate and professional student.

Complete information is available at most financial institutions. If you are unable to secure a guaranteed student loan from your hometown bank or credit union, contact the UTC Financial Aid Office for further information.

Federal Parents Loan for Undergraduate Students (PLUS)
Federal PLUS loans enable parents with good credit histories to borrow for each child who is enrolled at least-half-time and is a dependent student. These loans, like Federal Stafford Loans, are made by a lender such as a bank, credit union, or saving and loan association. The yearly loan limit is the student's cost of education minus any estimated financial aid you're eligible for.

For PLUS loans first disbursed on or after July 1, 1994, the interest rate will be variable, but not higher than 9 percent. This rate for the 1996-97 academic year was 8.72 percent.

Federal Perkins Loans (formerly National Direct Student Loans)
Long term loans at five percent interest are available. This program is funded through the U.S. Department of Education. Proven financial need determines eligibility. To establish need for this loan, the student must file the Free Application/or Federal Student Aid. Loan repayment and interest on Perkins Student Loans are deferred until after graduation or as long as the individual remains in half-time attendance at an accredited institution of higher education in the United States. Repayment may also be deferred for up to three years for special circumstances as outlined in the Higher Education Amendments of 1992. The maximum repayment period is normally 10 years with the current minimum annual repayment $360 or 10 percent of the accumulated loans, whichever is greater.

If upon graduation the borrower becomes a full-time teacher in a public or nonprofit school that is designated by the U.S. Commissioner of Education as having a high enrollment of low income families or becomes a teacher of the handicapped, 15 percent of the total principal plus interest is cancelled for the first and second year of teaching, 20 percent for the third and fourth years, and 30 percerit for the fifth year. If after graduation the student becomes a staff member in a Title I preschool program that is operated for a period comparable to a full school year, 15 percent of principal plus interest will be cancelled for each year of service. Cancellation provisions are also available for law enforcement/correctional officers.

An undergraduate may be extended a maximum loan of $4,000 per year up to an accumulated loan total of $20,000. Graduate or professional students may borrow up to $6,000 per year for an accumulated loan total of $40,000. The above regulations and provisions of the Federal Perkins Loan Program are subject to change by federal legislative action.

Other Assistance

Tennessee Student Assistance Corporation (TSAC) Grants
Grants are made by the Tennessee Student Assistance Corporation to residents of the state of Tennessee who show a financial need as supported by the Free Application *for Federal Student Aid.* TSAC awards range from an annual maximum of $ 1026 to a minimum of $378. Students should apply before March 1. The Free Application *for Federal Student Aid* is used to apply for this grant.

Georgia Tuition Equalization Grant
Grants are made by the Georgia Finance Authority for approximately $500 per semester to Georgia residents who are juniors or seniors at UTC. Students must live within 50 miles of UTC and more than 50 miles from a four-year Georgia educational institution. Full-time enrollment at UTC is required and the student must have completed sixty credit hours. Applications are available in the UTC Financial Aid Office and must be filed by the last day to register for classes in any term. The Free Application for Federal Student Aids is used to apply for this Grant.

Eligibility for Continuation **of** Financial Assistance
As a general rule students are eligible to continue on financial assistance at UTC if they meet UTC continuation standards (published in the UTC catalog), do not abuse their right to receive financial assistance and make satisfactory progress in their program of study. A separate continuation scale for guaranteed and minority scholarships is published each year.

Students are suspended from financial assistance immediately in any term that they make no progress or are academically suspended or dismissed. Students who are enrolled full time must earn at least 20 hours per academic year to be considered making satisfactory progress in a program. Scholarship students must complete 24 hours. The required hours of progress are prorated for part-time students and students in graduate programs. Students who do not make progress will not be awarded or disbursed financial aid. Also, students who have attempted more tiian 150% of the hours required for graduation in their program are not eligible for financial aid. For complete details on suspension, non-renewal and appeal, contact the Financial Aid Office.

Application Procedures

Because a student's family resources can decrease and increase significantly from year to year, the University requires each student to apply annually for need-based financial aid. Students currently receiving scholarships will be automatically reviewed for renewal according to the specific scholarship renewal criteria.

1. Although applications will be processed throughout the year, students should complete and submit the Free *Application for Federal* Student Aid no later than February 15 in order to meet the April 1 priority deadline for fall semester.
2. Entering freshmen applying for scholarships *only* need to complete the application for undergraduate admission and academic scholarships and be admitted to the university by February 1. Students currently receiving scholarships are not required to submit the Application for scholarship. If applying only for academic merit scholarships a financial statement is not required but is recommended.
3. Students should have begun the process for admission to the University prior to or at the same time as applying for financial aid.
4. Tennessee residents should apply for the Tennessee Student Assistance Award if requesting aid based on financial need.
5. The Financial Aid Notification Letter is the UTC award letter which states the amount and types of financial aid **awarded.**

6. Students must make satisfactory progress toward the degree to continue on financial aid. There are two standards of progress the student must meet. First, students must be eligible to continue according to the University's "Standards of Continuation" published in the catalog. Second, students must earn a required number of hours each year based on their enrollment as a part-time or full-time student. A thorough explanation of this standard and a set of guidelines may be obtained in UTC's Financial Aid Office. A separate continuation scale for guaranteed and minority scholarships is published each year.
7. If students expect to have funds available for fee payment, they must complete all procedures, submit necessary documents,and acceptthe irawardsbyjuly 1 for fall semester and November 1 for spring semester.

Application Process

1. Complete the *Free Application for Federal Student Aid* and mail in the envelope provided. There is no fee required. Be sure to include UTC and its Title IV code, "003529" in the appropriate section of the Free *AppUcationfor Federal Student Aid.* Allow 4-6 weeks for processing.
2. An institutional information form is required of all students. This document may be obtained from the UTC Financial Aid Office.
3. A student verification form and appropriate federal tax returns may be requested. These documents should only be submitted if requested!
4. Other forms may be required to complete the application process. Return all requested forms as soon as possible.

Award Process

The award process occurs 4-6 weeks following receipt of all requested forms.

5. Financial Aid Office awards aid for student and sends student a "Financial Aid Notification" award letter.

Check **Authorization and Disbursement**

Normally funds for students are authorized by the UTC Financial Aid Office and disbursed by the UTC Bursar's Office.

6. Disbursement of Stafford Loans occur during designated fee collection days or as soon thereafter as possible. First-time borrowers at UTC *must* attend an entrance interview in order to receive loan funds. First time freshmen loan proceeds will be disbursed 30 days after the first day of classes.

Refund Process

Refund Process For Title IV Federal Student Financial Aid

Students who receive Federal Title VI assistance may be subject to a different refund calculation if they withdraw from all classes. Students who withdraw during the first 60 percent of the term will have a refund calculated. The percentage of the refund will equal the percentage remaining in the term at the time that the student withdraws.

All refunds caused by a student withdrawing from all classes will be returned to the appropriate financial aid account(s) or lender in the case of student loans. Refunds will be credited/returned to the appropriate student financial aid program(s) in the order listed below:

1. Unsubsidized Federal Stafford Loan
2. Subsidized Federal Stafford Loan
3. Federal PLUS Loan
4. Federal Perkins Loan
5. Federal Pell Grant
6. FSEOG
7. Other SFA Programs
8. Other federal, state, private, or institutional sources of aid
9. The student

Repayments

Students who receive federal student financial assistance funds in excess of their direct cost (i.e. maintenance, tuition, room) may be required to repay funds to certain Title IV programs.

1. Federal Perkins Loan
2. Federal Pell Grant
3. FSEOG
4- Other SFA Programs
5. Other federal, state, private, or institutional sources of aid

General Refund Information

Students who stop attending classes prior to the completion of the term should read carefully the information on unofficial withdrawals.

All refund/repayment calculations are completed within 60 days of the official withdrawal date and all funds are returned to the appropriate programs.

Students must present their official withdrawal/drop forms in person to the Office of Student Financial Aid to commence the withdrawal process. In the event this is not plausible, the student must communicate the circumstances surrounding their inability to present the required form. Failure to officially withdraw will result in the University applying its own administrative procedures for determining the unofficial withdrawal date.

All questions, concerns, or appeals of refund/repayment decisions should be addressed to: Director of Financial Aid, University of Tennessee at Chattanooga, 253 Hooper Hall, 615 McCallie Avenue, Chattanooga, TN 37403-2598.

Information and Assistance

The Financial Aid Office regularly provides assistance with the financial aid application process and financial budgeting. Also, students or parents may request a review of the determination of the student's need and award.

For applications and further information on financial aid call or write the Financial Aid Office, 253 Hooper Hall, The University of Tennessee at Chattanooga, 615 McCallie Avenue, Chattanooga, Tennessee 37403, (423) 755-4677.

STUDENT FEES AND EXPENSES

Tuition is free to residents of Tennessee. Out-of-state students must pay the tuition charge. A student's residence is determined primarily by the residence of the student's parents. Exceptional cases, including guardianship, are given special consideration and are determined on the basis of the particular circumstances in each case. Any student who is classified as an out-o£-state student may, at any time, request that a residence classification be reconsidered. When additional information concerning a student's residence classification is available, the student should provide the Office of Undergraduate Admissions (or Graduate Office for graduate students) with this information in order that a reappraisal of residence status may be made.

Tuition and Maintenance Fees

The following fees were accurate for the 1998-99 academic year. Fees for academic year 1999-2000 are not yet set.

In-state undergraduate/special student maintenance fees

Per Semester Hour	$81
Maximum Charge	$996

In-state graduate student maintenance fees

Per Semester Hour	$ 13 7
Maximum Charge	$1,306

Out-of-state undergraduate/special student tuition/maintenance fees

Per Semester **Hour**	$256
Maximum Charge	$3,409

Out-of-state graduate student tuition/maintenance fees

Per Semester Hour	$356
Maximum Charge	$3,719

Debt Service Fee

All students registered will be assesed a debt service fee.

Per Semester Hour	$4
Maximum Charge	$52

Program and Service Fee

All students registered will be assesed a program and service fee.

Per Semester Hour	$7
Maximum Charge	$84

Technology Fee

All students registered will be assessed a technology fee.

Per Semester Hour	$12
Maximum Charge	$100

*Student fees **are** established by The University of Tennessee Board of Trustees and are subject to change without notice.*

The above fees apply to courses taken for credit or audited.

Auditor's Fees

Fees for courses being audited are the same as those for courses taken for credit. Auditors do not take examinations, receive credit or grades, and may or may not participate in the class activities as determined by the instructor.

Fees for **Students** with Disabilities

Tennessee residents who are physician certified with 100 percent total disability and meet admission requirements may enroll for credit for a fee of $7.50 per semester hour to a maximum of $75 per semester.

Tennessee residents who are physician certified with 100 percent total disability may audit classes on a space available basis at the University without paying a fee.

For fee information call the Bursar's office at (423) 755-4781.

Listener's Fee

Tennessee residents considering entering or returning to the University may listen in academic courses for a fee of $10 per course without additional obligations. Participation in this program is limited to two courses per semester for a maximum of two semesters. Only individuals who have not received a baccalaureate degree and who have not had any college courses in the previous five years may participate. For more information call the Bursar's Office at (423) 755-4781.

Music Fee

In addition to the credit hour rate, a music fee is assessed for instructional courses. The fee is due at the regular fee payment dates. The fees are:

Per one-half hour instruction.....$30
Per one hour instruction.....$60

Post-baccalaureate Fees

Post-baccalaureate students pay fees at the undergraduate rate.

Senior Citizens Fees

Tennessee residents who will become 65 years of age or older during the academic semester in which such persons begin classes and who meet admission requirements may enroll for credit for a fee of $7.50 per semester hour to a maximum of $75 per semester.

Tennessee residents who become 60 years of age or older during the academic semester in which such persons begin classes may audit classes on a space available basis at the University without paying a fee.

For fee information call the Bursar's Office at (423) 755-4781.

Summer Terms

" Fees for the summer sessions are the same as for regular semesters.

Veterans' Fees
(All veterans must confirm attendance by deadline date.) Veterans who have been processed for veterans assistance and their check has not been received will be eligible for a thirty-day extension or until their check is received, whichever is sooner. Veterans receiving regular monthly checks will not be eligible for an extension each semester. Failure to pay fees within the thirty-day period may withdraw from the University at which time applicable withdrawal fees plus late payment fees will apply. Those desiring reinstatement must then pay the reinstatement fee.

Other Fees

Application Fee.....$25
A nonrefundable fee payable at the time application is made.

Returned Check Fee
Any checks received by the University which fail to clear the bank on which drawn will incur a service charge of $10 if paid within the first seven days. After the seventh day the service charge will increase to $15. In addition to the service charge, a check written to cover tuition, dorm, and fees which fails to clear the bank, will incur, the appropriate late and reinstatement fees in effect at the time the student redeems the check. Check writing privileges will be revoked for those students writing three or more returned checks to the University.

Housing
Room rents vary from $850 to $1,275 per semester according to the accommodations available. A $25 nonrefundable housing application fee is required from students applying for housing. In addition a $200 advance payment is required for fall semester. Fees not paid on regular fee payment will incur a late fee. If the University must bill for dorm fees a $5 deferred fee will be due in addition to the late fee.

Student Dining Plans
Students may apply for various meal plans through the Marriott Food Service. For complete information regarding the plans available and an application, contact Food Services, UTC University Center, 755-4200.

Orientation
A $50 fee for freshman orientation includes meals, as well as overnight dormitory stay. The fee also covers cost of booklets and orientation materials.

Parking
Reserved parking decal.....$72 per semester
Reserved parking decal (summer).....$48
General parking decal.....$78 per year

Special Examination Fees
Payable for each proficiency or validation examination.
Undergraduate.....$47 per credit hour
Graduate.....$66 per credit hour

Mocs Express Fee Payment

Special Note-A/R Holds
A A/R (holds) which are prior obligations to the University (library fines, old UC/UTC loans, parking fines, bad checks, accounts receivable, etc.) should be paid prior to registering for courses. No student will be allowed to register with a hold. Also, obligations which are incurred after registration will be required to be paid with current term charges by the cancellation deadline.

Any student who submits registration materials will be obligated for a percentage of the fees even if he/she does not attend classes unless the Registration Office is notified in writing prior to the first official day of classes that he/she wishes to cancel registration.

Mocs Express Fee Payment
Beginning fall 1999 students will not go to the University Center for fee payment.

With the implementation of the new one-step computerized student system Mocs Express, the fee payment process has been simplified. Mocs Express has been developed as an effective and efficient way to handle fee payment and delivery of excess financial aid.

Mocs Express combines all of fees, charges, fines, and credits into one statement. The University will mail a Mocs Express statement to all students who register during the Priority Registration period. Students who owe a balance may write a check or authorize a MasterCard or Visa account to Confirm attendance and return payment and statement by mail before the deadline. Students who do not owe a balance or have a credit may simply confirm attendance by returning the bottom portion of the Mocs Express statement before the deadline.

The University reserves the right to refuse to release to any student his or her transcript or degree for failure to return UTC property or for failure to pay any accounts due at the University.

The University accepts cash, checks, MasterCard, and Visa for payment of fees.

Priority Registration
Students who register during the Priority Registration period will have best selection of available classes and will be ensured of having their financial aid available at the start of classes. Also, students who register during the Priority Registration period will receive their Mocs Express statement by mail and can pay their fees by mail.

- Priority Registration for fall 1999 ends August 13.
- Priority Registration for spring 2000 is November 16,1999, through December 20, 1999.

To Avoid Registration Problems
Act early! If you are late, you will have to wait.

As the deadline gets closer, lengthy lines may form at the Bursar's Office. The Bursar's Office, Financial Aid, Housing, and the Registration Office are often busy with telephone calls. If there is a problem with your Mocs Express statement, notify the Bursar's Office at (423) 755-4781 immediately.

Every student who has registered during Priority Registration is responsible for the deadline.

Late Registration

No late fees are assessed for fee payment during the Late Registration if students pay their fees prior to the beginning of classes.

- Late Registration for fall 1999 semester is August 19-20, 1999.
- Late Registration for spring 2000 semester is January 3-6, 2000.

Final Registration

Students who register after classes begin during Final Registration will be charged a $50 late fee.

- Final Registration for fall 1999 is August 23-27,1999.
- Final Registration for spring 2000 is January 7-13, 2000.

Cancellation Policy

Failure to pay fees or set confirmation of attendance with the Bursar's Office by the deadline will result in automatic cancellation from all classes. This applies to all students regardless of sources of funds, including those whose fees are billed, deferred, waived, or paid with personal funds including financial aid and graduate assistantships. All students canceled will be required to re-register and pay appropriate fees, including late fees.

The deadlines for the 1999-2000 academic year are:

For fall 1999, deadline is 4 p.m. on August 13, 1999

For spring 2000, deadline is 4 p.m. on December 20, 1999

Prepayment Plan

Under the prepayment plan, students and/or parents choose the academic year expenses they wish to prepay, including room, board, tuition, fees, or books. The expenses can be prepaid over a period of eight months with the first installment due by May 10. The remaining seven monthly installments are payable on the tenth of each succeeding month. Please contact the Bursar's Office for details.

Deferred Payment Plan

A student in good financial standing with the University and has an anticipated source of funds may defer up to 50 percent of fees. A $10 extension fee and at least 50 percent of fees are due by deadline date. The balance will be payable on the 45th calendar day of the term. An additional $25 will be assesed if the installment is not paid on or before the due date. Financial aid recipients must first apply their aid toward payment of fees, regardless of source of* funds. This plan is not offered for the summer terms.

Dorm Payment Plan

Housing students may choose to participate in the dorm payment plan. Payment equivalent to 50% of rent is due and payable at fee payment, plus a $ 10 extension fee charge. The remaining balance is paid in two installments on the 30th and 60th calendar day of the term. A late payment charge of $25 will be assessed on each monthly installment not paid on or before the due date. Financial aid recipients must first apply their aid toward payment of fees, regardless of source of funds.

Refund of Fees and Additional Charges

General

No refund is due on courses which are dropped unless the charge for the remaining courses plus the percentage charge for the courses dropped is less than the maximum semester charge for tuition and maintenance fees. All refund periods are based on the official first day of classes for the University, as published in the catalog and schedule of classes.

All charges and refunds will be made to the nearest even dollar. All charges are subject to subsequent audit and verification and errors will be corrected by appropriate additional charges or refunds.

Approximately six weeks after the beginning of the semester (except summer) a statement of account will be sent to students who owe additional fees or fines.

Refunds on dropped courses, in accordance with the refund policy, will not be made until after the 10th week of the semester.

Fall and Spring Semesters

	Drop*		Withdr iwal**	
	Charge	Refund	Charge	Refund
Prior to first day of class	0	100%	0	100%
1- 7 calendar days***	0	100%	10%	90%
8-14 calendar days	20%	' 80%	20%	80%
15-21 calendar days	40%	60%	40%	60%
22-28 calendar days	60%	40%	60%	40%
29 or more calendar days^	100%	0%	100%	0%

*Dr6p - Courses dropped which do not result in complete withdrawal.

**Withdrawal - Complete withdrawal from all classes.

***Note: Only seven calendar days to drop with no charge.

ACADEMIC REGULATIONS

Catalog **Effective Dates**

The catalog in effect at the time of entry will be used to determine degree requirements if the degree is conferred within 10 years. Students, however, may also elect the current catalog at the time of reentry, the catalog in effect when a new major is selected, or a catalog reflecting a revised curriculum. Transfer students may use the catalog in effect at the time of their first entry into college provided that the UTC degree is conferred within 10 years of their first entry.

A student seeking recommendation of The University of Tennessee at Chattanooga for initial teacher licensure or endorsement must satisfy the current UTC approved program requirements on file with the Tennessee Department of Education at the time of application for licensure.

Catalog adjustments still need to be made to major requirements due to the new general education program. These adjustments, which will be made in the 2000-2001 catalog, will also apply to the 1999-2000 catalog. These adjustments should not increase the number of degree hours.

Registration Limits

Students are classified as full time if they are registered for 12 hours or more. Students registered for fewer than 12 hours, either by their own choice or by University regulations, are classified part time. Students wishing to complete degree programs in four academic years will need to schedule 16 hours each semester. Schedules of over 20 hours are not permitted unless the students have obtained advance approval of the Petitions Committee.

The maximum load for a day term of summer is 7 hours; for any evening term the maximum load is 10 hours; any combination of terms is 10 hours, and the maximum registration is 20 hours for the entire summer session. The written consent of the adviser is required to register for a total of 17 to 20 hours in the summer. Exceptions must receive advance approval by the Petitions Committee.

Any student registered for credit courses may enter classes as an auditor, subject to the approval of the student's adviser and of the instructor whose class is audited. An audit registration may not be changed to a credit registration later than the last date to add for the semester. Audit registrations are zero (0) credit.

Course **Numbers and Levels**

Courses offered by the University are listed in each college or school section with the course numbers, title, credit, course descriptions, and prerequisites. The numbers identify the level of the courses. In special circumstances a student may register for a course above the stated level when in accordance with departmental policy and on recommendation of the adviser. Freshmen, however, are not permitted to register for 300- and 400-level courses. For *any undergraduate degree, students must complete a minimum of 30 hours of courses at the 300 level or above. The University residency requirements will change effective Fall 2000. See page 32 for specific information.*

Course Numbers	*Level*
000-099	Activity, service, or noncredit courses. A maximum of eight hours of S grade in courses in this group may be applied toward a degree.
100-199	Primarily for freshmen but may be taken by sophomores and juniors. Senior registrations at this level are not recommended.
200-299	Primarily for sophomores but open to juniors and seniors.
300-399	For juniors and seniors.
400-499	For seniors and graduate students. When taken for graduate credit, the letter G will precede the credit hours.
500-699	Restricted to fully qualified graduate students. Courses cannot be used for an undergraduate degree.

Classification

Students are classified as freshmen, sophomores, juniors, and seniors according to the number of hours earned:

Freshmen	— 0-23 semester hours
Sophomores	— 24-59 semester hours
Juniors	—60-89 semester hours
Seniors	— 90 semester hours or more

Institutional Credit and Developmental Studies Program

Institutional credit will be assigned to all developmental courses in reading (EDUC 105), mathematics (MATH 105,106), study skills (USTU 100), study skills lab (PSY 100, SOC 199), and writing (ENGL 105, 106). This credit will be in addition to all degree requirements. It will not apply to the hours required for graduation, major requirements, general education requirements, or electives. Neither will it be counted in the grade point average for graduation or honors. While the student is enrolled in developmental courses, however, institutional credit will be counted in the grade point average in determining the student's eligibility to continue in residence at UTC as outlined in the retention and continuation standards.

Effective fall 1986 and thereafter, first time freshman students who are required or who volunteer to enroll in developmental studies courses must successfully complete them within the first 42 attempted hours counting both institutional and regular credit. Transfer students must complete required developmental courses within 30 attempted hours following initial enrollment at UTC. Exceptions may be made in individual cases by the director of the development studies program or designate.

Students may drop a developmental studies course only with the permission of the course instructor, director of developmental studies, or a designated adviser (a list of persons authorized to sign for drop will be provided).

To exit the developmental studies program, a student must have a grade of C or above in all courses of his or her program of developmental studies.

Placement Exam Requirements

All new undergraduate students at UTC are required to take UTC placement exams in readirig, mathematics, and writing prior to enrollment in these courses. All incoming students who have 3 years or more of high school study in a single foreign language (and no college level study of the language) and who wish to continue study in that language will be required to take a placement test to determine their level of competence in that language. A student should begin study of the language in question at the level estab' lished by the placement level. Under special circumstances, exceptions may be granted upon appeal to the departments. Students presenting ACT/SAT scores are exempt form the reading placement. All new enrollees are strongly advised to take placement exams during the first week of their first semester and, are required to take the exams by term's end. In general, transfer student with acceptable performance in college level courses and/or acceptable ACT/SAT scores will be exempt from the reading test.

Freshman students who are required or who volunteer to enroll in departmental studies courses must successfully complete them within the first 42 attempted hours. Transfer students must complete developmental courses within 30 attempted hours following initial enrollment at UTC.

In general, the only students who are exempt from taking one or more of the placement exams are students with advanced placement or transfer students meeting one of the following criteria:

Mathematics	Grade of C or better for developmental algebra (Math 105,106, or 107) or college algebra (Math 131 or 135) or trigonometry (Math 145) or calculus (Math 136,150,151-152, etc.). If credit in these courses is several years old, students who need to enroll in mathematics at UTC are encouraged to take the placement test for advisement purposes. Students with credit for mathematics courses other than those specified above are not exempt from taking the mathematics placement test.
Writing	Credit in developmental writing (English 100, 105, or 106) or freshman composition (English 121 or 122);
Reading	Acceptable performance in college level courses or acceptable ACT/SAT scores.

Students at Academic Risk

Undergraduate students who demonstrate that they may be at academic risk may be required to enroll in certain courses and participate in programs, including summer programs, designed to enhance their academic skills. Credit accrued may not necessarily be applicable to a degree.

Retention and Continuation Standards

In order to be able to continue in residence at UTC, students must earn a minimum grade point average in accordance with the following scale of attempted hours:

Hours Attempted	GPA Required
1-23	1.0
24-39	1.5
40-55	1.8
56 and above	2.0

Students who achieve the required cumulative grade point average for the hours attempted are considered to be in good standing. Those who fail to achieve the required average will be subject to the following action:

1. Students will be placed on academic probation after the first failure to earn the required grade point average. Freshmen admitted "on condition" enter on probation for continuation purposes and must earn a minimum 1.00 grade point average their first semester in attendance.
2. Academic suspension for one semester will follow if probation is not removed by raising the grade point average to required standards or if a 2.0 average for the semester of probation is not achieved. Freshmen admitted "on condition" will also be subject to suspension if they do not earn at least a 1.0 grade point average in their first semester of attendance. The complete summer session is considered a period of suspension. Suspended students who enroll in other colleges or in correspondence courses during their semester of suspension must earn at least a 2.0 average on all hours attempted during this period in order to be eligible for automatic readmission to UTC. Students not meeting the 2.0 requirement must apply for readmission through the Admissions/Readmissions Committee.
3. Students will be placed on probation when they return after the period of suspension. They must either achieve a 2.0 average in the semester following their return or raise their cumulative average to acceptable standards. If they fail to achieve either standard, they will be dismissed for an indefinite period and may not apply for consideration for readmission for one calendar year unless an appeal is filed with die Petitions Committee and acted upon favorably.
4- Any student permitted to enroll despite the fact that his or her cumulative average is below continuation standards will be on probation.

Students who are either suspended or dismissed have the right to appeal for reentry if they believe that extenuating circumstances were responsible for their poor academic achievement. Students who wish to appeal for reentry to the term that immediately follows their suspension or dismissal, including any term of the summer, must complete a petition form available in the Office of Records and Registration. In addition, dismissed students who wish to appeal for reentry before the end of a calendar year must also complete a petition form available in the Office of Records and Registration. Appeals for the term in which reentry is sought must be made by the third day of classes for the fall and spring semester and the second day of classes of any summer term.

Although readmission is not automatic, dismissed students who wish to appeal for reentry after the lapse of at least one calendar year must complete their appeal through the Office of Undergraduate Admissions on special forms available in that office. Appeals for the fall semester must be completed and received in the Admissions Office by August 1, The deadline for spring semester is December 1 and the deadline for all summer sessions is May 1. Appeals received after these deadlines will be processed for the next possible term.

All students who have been academically dismissed must be readmitted by the Admissions or Petitions Committee.

Academic actions noted above are recorded on the academic record.

Academic Warning
Academic warning is a cautionary notice to the student that his or her semester grade point average is below 1.0 and that continued academic performance at this low level may lead to probation, suspension, or dismissal. Students may be placed on probation or may be suspended or dismissed without having received such a warning notice since these academic actions are closely linked to the overall grade point average. Academic warnings do not appear on the student's academic record.

Academic Alert
Academic alert may be noted on the grade report for any student whose cumulative average is below 2.0 even though the student meets minimum requirements for continuation.

Academic Forgiveness (undergraduate only)
The University has adopted an academic forgiveness policy which permits students to apply for the removal of courses taken at any institution, including UTC. Although the courses will not be removed physically from the student's academic record, they will no longer bexalculated in the grade point average and will no longer apply toward the fulfillment of any University requirement. The policies for academic forgiveness are as follows:

1. Academic forgiveness is initiated by student request.
2. A student must be admitted to UTC and registered for classes at UTC in order to apply for academic forgiveness.
3. Academic forgiveness applies to *all* courses taken anywhere by the student eight years *prior* to the date of application for academic forgiveness.
   a. All work attempted more than eight calendar years before the date of application will be removed from consideration for credit for fulfillment of general education or major requirements or for grade point average or for any other purpose or requirement.
   b. The eight years will be figured from the semester preceding the date the application is received in the Records Office (summer is considered one semester).
   c. Academic forgiveness may not be used to remove from consideration college courses taken *within* eight years of the date of application for academic forgiveness.
4- Academic forgiveness may be granted only once and, when granted, is irrevocable.

Students seeking academic forgiveness should:

1. Secure the application for academic forgiveness in the Records and Registration Office (128 Hooper Hall); read the terms carefully; complete the form and sign it.
2. Return the completed and signed form to the Records and Registration Office. The application for academic forgiveness will be verified and courses will be checked for eligibility in accordance with the policies stated above. Students will be notified of the course credits that will be forfeited.
3. Sign the final agreement to forfeit eligible courses and return the form to the Records Office for processing.

Grading Policies

Grades

A represents superior performance in the course.

B represents commendable performance in the essentials of the course.

C represents acceptable performance in the essentials of the course.

D represents marginal performance below the acceptable standards of university work.

S is given for courses completed on a *satisfactory/no credit* basis. The hours are not computed in the grade point average. *Not more than* eight hours *in* Exercise Science, Health and Leisure Studies 039, Varsity Sports, *may be applied toward the 128 hours required for* ***a*** *degree.*

NC represents failure to complete the requirements in *satisfactory /no credit* courses. The attempted hours are not computed in the grade point average.

I may be given to a student whose work has been of passing quality and who has valid reason for not completing some requirement of the course. Removal of an Incomplete must be submitted by the instructor to the Records and Registration Office no later than three weeks before the last day of classes in the next regular semester, or the Incomplete will become an F. The Incomplete grade will not be computed in the grade point average during the interim. Any student called to active duty in the Armed Forces of the United States may, with the permission of the instructor, be given an indefinite incomplete. The incomplete may be made up at any time or a retroactive withdrawal may be granted (Students must contact the Director of Records and Registration for appropriate procedure.)

IP is used as an interim grade for departmental honors courses numbered 495r and indicates work in progress. It must be removed by the end of the next regular semester or the In Progress becomes an F. IP is also used as an interim grade for Physical Therapy 330,331,430,431 and 490. Removal for all, except PHYT 431, must occur by the end of the next regular semester or the IP becomes a No credit (NC). Removal of IP's in PHYT 431 must occur by the end of the following summer semester or the IP becomes a No credit (NC). The IP will not be computed in the grade point average during the interim.

F indicates unqualified failure and the necessity for repeating the course to obtain credit.

W indicates official withdrawal from one or more courses after the first two weeks of classes, and up to the last six class weeks before final examinations. Comparable deadlines apply to each of the summer terms.

WF is to be used for students who are receiving Title IV financial aid and who have stopped attending UTC classes without withdrawing officially. The WF is the equivalent of F for all academic purposes. The grade of F, as submitted by the instructor, will be changed to WF by the Records Office. The last day of class attendance will be obtained from the instructors and will be used to determine change in enrollment status. The change in enrollment status will be communicated to the U.S. Department of Education as required. The grade of F will be reflected on transcripts and on the report of academic progress. The WF will be on the academic record for internal use only.

Quality Points

Quality points are computed for undergraduates for each credit hour as follows:

A—4
B —3
C—2
D—1
F (WF) - 0
S — not included
NC — not included
W — not included

Grade Point Average

Grade point averages are computed by dividing the total number of quality points earned by the total number of semester hours attempted, including hours of F. Hours are excluded in which grades of S, *NC,* I, and Whave been earned. Institutional credit is not included in the calculation of grade point averages for gradu' ation or for honors.

Grade point averages are not rounded, and no numerical value less than the stated grade point average will suffice. See section below for policy on replacement of grades.

Repeated Courses

1. Provided prerequisites are met, students may replace a total of five grades of C or lower. Any five grades in one or more subjects may be replaced, but the total number of replaced grades cannot exceed five. Developmental studies courses (institutional credit) will be included in the grade replacement limit, but grades of S, *NC,* and *W* will not count in the, allotted number of replacement grades.
2. The policy was effective with the fall of 1985. Unlimited replacement of grades earned at any college or university will be permitted before the fall of 1985. Beginning with the fall of 1985, a student will be limited to five additional replacement grades in courses taken at UTC or any other college or university.
3. All grades, except the five replaced grades, will be used in the grade point average computation.
4. In any repeated course, excluding "r" courses, a student forfeits the first earned hours, if any. Previous grades and credit do not count; only the last grade counts.
5. Courses in which grades of A or B were earned cannot be repeated except for "r" courses. If an A or B is repeated, the repetition will be changed from credit to audit. An exception is made for registered nurses who are required by the School of Nursing to repeat specified science courses (Biology 208,209,210, Chemistry 121 and 122) that were originally completed 10 years or more prior to the students' admission to the nursing major at UTC.
6. For a transfer student a "course" is interpreted as any course listed separately in an individual term on the transcript regardless of the number of such courses needed to equate to a UTC course.
7. When a student is repeating more than one course in a term and is nearing the permissible limit of five replacement grades, the following order will determine replacements: 4 hour F's, 3 hour F's, 2 hour *F's,* 4 hour *D's,* 3 hour *D's, 2* hour D's, 1 hour F's, 1 hour *D's,* 4 hour *C's,* 3 hour *C's, 2* hourC's, 1 hour C's. In the case of a tie, a grade in a course within the student's major will be replaced first.
8. Students are responsible for indicating at the time of registration that they are repeating courses.

Withdrawals

After a semester or summer term is in session, a student is expected to attend all classes until or unless hear she notifies the Records and Registration Office in writing of the student's intent to withdraw from the University or from one or more classes.

Students sometimes find it necessary because of illness, job responsibilities, or personal problems to discontinue their enrollment. If they must stop attending, they should be certain to withdraw officially. *Failure to withdraw officially from any course will result inagradeofF.*

Withdrawal deadlines for each semester or term are noted in the schedule of classes.

During the first two weeks of a semester a student may officially withdraw without prejudice from any class and no grade will be recorded. After that period and up to the last six weeks of class a student who officially withdraws will be graded *W.* Except in unusual circumstances, no withdrawals are permitted in the last six weeks of classes. Comparable periods apply to summer terms and specific dates are printed in the class schedules. Any request for an exception to the withdrawal deadline must be made to the director of records and registration or designate.

Students who are receiving Title IV financial aid and have stopped attending UTC classes without withdrawing officially will have their change in enrollment status reported to the U.S. Department of Education as required. The grade of F will be changed to WF by the Records Office for internal use only. The WF will be the equivalent of F for all academic purposes.

Undergraduate Degrees

The University offers undergraduate programs which lead to the degrees of Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Bachelor of Science in Engineering, Bachelor of Science in Nursing, Bachelor of Social Work, and Bachelor of Science in Physical Therapy. Majors offered within these degrees are as follows (specific requirements are outlined in the appropriate colleges and divisions):

Applied Mathematics (B.S.)
Concentrations: Actuarial Science, Corporate Science, Computer Science, Systems Science
Art (B.A., B.F.A.)
B.F.A. Concentrations: Graphic Design, Painting & Drawing, Sculpture
Art Education (B.S.)
Biology (B.S.)
Concentrations: General Biology, Ecology, Preprofessional, Organismal, Molecular
Business Administration (B.S.)
Concentrations: Accounting, Finance, General Management, Human Resources Management, Industrial Management, Marketing, Entrepreneurship
Chemistry (B.A. and B.S.)
Communication (B.A.)
Computer Science (B.S.)
Concentrations: Computer Engineering, Information Systems, Scientific Applications
Criminal Justice (B.S.)
Economics (B.A. and B.S.)
Engineering (B.S.E.)
Concentrations: Engineering Management, Electrical (Instrumentation and Control, Power), Environmental, Industrial, Mechanical (Mechanics, Thermal Science), Chemical, Civil (Structural), Manufacturing Engineering
Industrial Technology Management (B.S.)
English and American Language and Literature (B.A.)
Includes concentration in writing
Environmental Science (B.S.)
Concentrations: Biology, Chemistry, Engineering Science, Geography, Geology, Mathematics, Physics, Sociology-Anthropology
Exceptional Learning K-12 (B.S.)
Exercise Science, Health and Leisure Studies (B.S.)
Concentration: Exercise Science (K-12, and Fitness/Wellness Specialist and Cardiopulmonary Rehabilitation), Health Promotion K-12, Sports Administration, Leisure Studies, Community Health Education
Foreign Languages (B.A.)
Concentrations: French, Greek and Latin, Latin, Spanish
Geology (B.S)
Concentrations: Geology, Environmental Geology
History (B.A.)
Human Ecology (B.S.)
Concentrations: Interior Design, Food and Nutrition, Child and Family Studies includes option in Child and Family Studies: Pre K-4
Humanities (B.A.)
Includes concentration in international studies
Human Services Management (B.S.)
Concentrations: Allied Health Management, Emergency Management, Nonprofit Management
Legal Assistant Studies (B.S.)
Mathematics (B.A.)
Medical Technology (B.S.)
Middle Grades Education (B.S.)
Music (B.A.)
Music (B.M.)
Concentrations: Instrumental Performance, Sacred Music, Theory and Composition, Vocal Performance, Music Education with options in Instrumental or Vocal
Nursing (B.S.N.)
Occupational Therapy (B.S.O.T.)
Philosophy and Religion (B.A.)
Concentrations: Philosophy, Religious Studies, Combined
Physics (B.S.)
Political Science (B.S.)
Concentrations: American Studies, International and Comparative Studies, Legal Studies, and Public Administration
Psychology (B.A. and B.S.)
Rehabilitation Science (B.S.)
Awarded as part of the Master's in Physical Therapy program
Secondary Foreign Languages (B.S.)
Concentrations: French, Latin, Spanish
Secondary English (B.S.)
Secondary Mathematics (B.S.)
Secondary Natural Sciences (B.S.)
Concentrations: Biology, Chemistry, Earth & Space Science, Physics
Secondary Social Sciences (B.S.)
Concentrations: Economics, Geography, History, Political science
Social Work (B.S.W.)
Sociology and Anthropology (B.A. and B.S.)
Concentrations: Anthropology, Sociology
Theatre and Speech (B.A.)
Includes concentration in Theatre Education K-12

Minors are currently available in the following areas:

anthropology
art: painting or sculpture or printmaking or graphic design or history of art
Asian studies
athletics coaching
Africana studies
chemistry
classics
communication
computer science
criminal justice
drama
economics
English: literature or writing
entrepreneurship
environmental science
food and nutrition
French
geography
geology
Greek
health physics
history
human ecology
human services management
international studies
Latin
mathematics
music: performance or history or composition
philosophy
physics
political science: American government or international and comparative studies or legal studies or political psychology and behavior or public administration
psychology
recreation
religious studies
social work
sociology
Spanish
theatre
women's studies

Additional minors may be developed.

Usage Notes

The letter r following a course number means that , because of a difference in content from semester to semester, a class may be taken more than once for credit. Example: Art 199r.

General Education requirements prior to Fall 1999: A capital letter (A, B, C, D, F, or G) prefixed to a course number means that course can also be used to satisfy the general education requirements of the category indicated. Example: Mathematics F136.

Degree Requirements

I. General Education Requirements

The general education requirements described below were approved by the faculty to *become effective for new students who enter in the fall of* 1999 *and thereafter. Courses are continually being reviewed to meet the criteria for general education certification; the lists below, therefore, will be expanded throughout the year. Anyone who changes to the current catalog must meet all requirements.*

Catalog adjustments still need to be made to major requirements due to the new general education program. These adjustments, which will be made in the 2000'2001 catalog, will also apply to the 1999-2000 *catalog. These adjustments should not increase the number of degree hours.*

Philosophy

The general education curriculum is the foundation of a university education and of learning throughout life. The UTC faculty believes that this curriculum can expand our students' fundamental knowledge, abilities, and aesthetic sensibilities, leading to a social awareness essential for individual and societal development at this stage in human history.

Graduates of the University of Tennessee at Chattanooga should have the knowledge and ability to:

• think analytically, logically, creatively, reflectively, and sensitively about the human condition;

• think analytically, logically, creatively, and reflectively about natural and abstract structures;

• collect, process, interpret, and use quantitative and qualitative information, using up-to-date methods, in order to define and defend viewpoints, solve problems, and make decisions;

• communicate effectively, especially in speech and writing; engage in civil debate; and collaborate on common tasks;

• incorporate into their world views a comparative, historical, and global perspective on the diversity of the human experience, including the complex factors that shape individuals, societies, civilizations, and knowledge.

Categories of Study

In order to accomplish the goals of general education, the faculty must ensure that the entire university curriculum is infused with these goals, and students must select courses prioritized by these goals. The curriculum outlined in the following categories provides a reasoned plan to achieve this purpose. It is comprised of courses both outside and within students' majors; includes the key disciplines developed by human beings to pursue knowledge of themselves and the universe; and maintains a balance between specific essential courses and sets of courses which provide flexibility for individual interests.

The categories of general education are described below, along with lists of courses which currently meet the criteria for general education certification. Please check the Schedule of Classes for the most complete list of general education courses being offered for the coming semester. Be sure to check major requirements before choosing courses, since specific general education courses are often required for a particular major.

Restrictions: Students are not expected to enroll for courses above their class levels without receiving the permission of the department offering these courses. (Freshman course&are 100 level, sophomore courses are 200 level, etc.) Students *are required to complete the requirements for Rhetoric and Composition within the first 42 hours of college level academic credit attempted, and the requirements for* Mathematics within the first 60 *hours of college level academic credit attempted.*

1. Rhetoric and Composition I & II (6 hours)

All students must complete Rhetoric and Composition I and II, with grades of C or better, within the first 42 attempted hours of college work.

Rhetoric and Composition I (3 hours)

An intensive writing course designed to develop skills essential for effective communication. Students will be sensitized to the structure, beauty, and complexities of Standard American English as they refine their abilities to write logically and clearly. This course must be completed with a grade of C or above. Prerequisite: appropriate placement level.

Rhetoric and Composition II (3 hours)

A more advanced writing and oral communication course,' emphasizing the composition of extended and persuasive essays and research papers, and the use of computers to gather and prepare information. This course must be completed with a grade of C or above. Prerequisite: English 121 with a grade of C or above or appropriate placement level.

Approved courses: English 121 & 122; University Honors 101 & 102

2. Intensive Writing (3 hours, unless integrated into the major)

All students must complete the intensive writing requirement by either (a) completing a 3-hour intensive writing course specified for the major, or (b) majoring in a discipline in which intensive writing has been integrated into major requirements. Please refer to major degree requirements for more details.

Students in the following majors will satisfy the intensive writing requirement within these majors, and are not required to take an approved course: French, Spanish, Philosophy and Religion, Human Services Management, University Honors

Students in majors not listed above are to refer to the catalog descriptions for their majors to determine which of the following approved intensive writing courses is specified for their major: Communication 231; English 277,278,279, 300, 410

3. **Oral Communication** (3 hours, unless integrated into major)
All students must complete the oral communication requirement by either (a) completing a 3-hour oral communication course specified for the major, or (b) majoring in a discipline in which oral communication has been integrated into major requirements.

Students in the following majors will satisfy the oral communication requirement within these majors, and are not required to take an approved course: Chemistry, French, Spanish, Theatre and Speech, Engineering, Computer Science, Human Services Management, Social Work, Nursing, Industrial Technology Management

Students not listed above are to take one of the following approved oral communication courses: Theatre and Speech 109; Chemistry 286

4. Computer Literacy (3 hours, unless integrated into the major)
All students must complete the oral communication requirement by either (a) completing a 3-hour computer literacy course specified for the major, or (b) majoring in a discipline in which computer literacy has been integrated into major requirements, or (c) earning a satisfactory score on the computer literacy proficiency examination.

Students in (he following majors will satisfy the computer literacy requirement within these majors, and are not required to take an approved course: Criminal Justice

Students in majors not listed above are to take one of the following approved computer literacy courses: Business Management 100; Computer Science 110, 150

5. **Cultures and Civilizations** (9 hours: Choose either Option (a) or Option (b))
Option (a): two sequential courses in western humanities and one course in nonwestern cultures and civilizations. English 121 is a corequisite for Western Humanities I and English 122 is a corequisite for Western Humanities II. Western Humanities I is a prerequisite to Western Humanities II and approved nonwestern courses.

Western Humanities I &. II (6 hours)
An historical approach to the great ideas, events, modes of thinking, and creations of the western world. The first course in this sequence will focus on developments from Antiquity through c. 1600; the second, from c. 1600 to the present. Both courses are designed to deepen historical perspective and offer opportunities to experience the power of literature and wrestle with issues of the human spirit. A set of primary texts common to all sections will serve as the focus for each course. In addition, each course will have a special emphasis in one of the humanities in one of the humanities or fine arts. Any Western Humanities I section may be used as a prerequisite to any Western Humanities II section.
Approved courses for Western Humanities I: Classics 113; English 113; Philosophy 113; University Honors 101
Approved courses for Western Humanities II: English 115; Philosophy 115; University Honors 102

Nonwestern Cultures and Civilizations (3 hours)
The study of the development or characteristics of nonwestern cultures and civilizations only for the purpose of contrast and comparison, and thoroughly relating aspects of a culture to its context. All courses in Nonwestern Cultures and Civilizations require Western Humanities I as a minimal prerequisite.
Approved courses inNonwestem Cultures and Civilizations: Geography 103; Music 311; Religion 211; Political Science 104; University Honors 217, 218, 219; University Studies 225

Option (b): Three courses in world civilizations. English 121 is a corequisite for World Civilizations 1, and English 122 is a corequisite for World Civilizations II and III. World Civilizations I is a prerequisite to both World Civilizations II and III.

World Civilizations I, II and III (9 hours)
An historical approach to significant or characteristic events, practices, and creations from world cultures and civilizations. The first course focuses on the ancient world through c. 1000; the second from c. 1000 to c. 1800; the third from c. 1800 to the present. All three courses include important aspects of both Western and nonwestern history and civilization, and integrate the study of the humanities and fine arts. These courses are designed to deepen historical perspective and increase cross-cultural understanding.
Approved course for World Civilization I: History 103
Approved course for World Civilization II: History 104
Approved course for World Civilization III: History 105

6. Humanities and Fine Arts (6 hours, with at least 3 hours in the fine arts)
Humanities courses are designed to acquaint students with historical, literary, philosophical, religious, and political experience and traditions, with special attention to the methods and techniques of the humanities disciplines. Fine arts courses are designed to heighten perception, appreciation, and enjoyment of music, theatre, and the visual arts, and may include studio experience in addition to historical studies.
Approved Courses in Humanities: Classics 310; English 131, 133, 207, 211, 212, 213, 214, 219, 257, 335; Human Ecology 325; History 203, 204; Philosophy and Religion 103, 110, 201, 425; University Honors 214
Approved Courses in Fine Arts: Art 111, 214, 215, 301; Music 111, 317; Theatre and Speech 111, 113, 115, 280; University Honors 103, 104, 105, 214

7. **Behavioral** and Social Sciences (6 hours)
The purpose of courses in the social and behavioral sciences is to explore the nature of human beings and how they function as individuals, as citizens, and as members of groups. These courses emphasize the theories, principles, methods, and empirical results of the social and behavioral sciences and assess the impact of scientific research on society.
Approved courses in Behavioral and Social Sciences: Anthropology 152; Criminal Justice 295; Economics 101, 102; Human Ecology 340; Human Services 101; Geography 104; Psychology 101, 241; Political Science 101; Sociology 125, 151, 215; University Honors 315, 316

8. Natural Sciences (7-8 hours; Two courses in the natural sciences, with at least one four hour course including a laboratory component)

The purpose of study ing the natural sciences is to participate in the systematic ways in which human beings analyze the physical universe, to appreciate the achievements of the human mind in comprehending the universe, and to understand the significant role of the natural sciences in human development. Courses in this category emphasize empirical studies of matter, energy, living systems, natural processes, and related phenomena, and examine science in the context of human culture.

Approved lab courses in the Natural Sciences: Astronomy 102/182; Biology 121, 122; Chemistry 121, 122/124; 125, 168; Environmental Science 150, 151; General Science 111/183; Geology 111/181,112/182; Physics 103/183,230/280

Approved non-lab courses for the Natural Sciences: Biology 110; Chemistry 111; University Honors 120

9. Mathematics (3 hours)

The purpose of this category is to develop the ability to use abstract and deductive reasoning, to think logically and creatively about mathematical problems, and to be able to interpret, develop, and use some mathematical models of real world and abstract phenomena. Courses in this category emphasize the use of mathematics as a powerful language in many disciplines and its significant role in human development.

AI! students must *complete the Mathematics requirement within die first 60 attempted hours of college work.*

Approved courses in Mathematics: 123,131,136,144,145, 151/152

10. Statistics (3 hours)

The purpose of this category is to develop the ability to use abstract and deductive reasoning, to think logically and creatively about statistical problems, and to be able to interpret, develop, and use some statistical models of real world and abstract phenomena. Courses in this category emphasize the use of statistics as a powerful language in many disciplines.

Approved courses in Statistics: Business Management 211; Economics 201; Mathematics 210; Psychology 201; Sociology 250

II. American History

By act of the General Assembly of the state of Tennessee, students who have not had one year of American history in high school must complete six semester hours of American history if they receive an undergraduate degree after July 1, 1978. Three hours of this requirement may be satisfied by Tennessee history.

To meet teacher licensure requirements under the old licensure program, majors in elementary and early childhood education must complete six semester hours of American history in college regardless of their high school background.

III. Physical Education

Exercise Science, Health and Leisure Studies 021, *is required in die first year,* plus one additional Exercise science activity course with the exception of varsity sports. Transfer students who have already successfully completed two one-semester hour courses in physical education activity, excluding varsity sports, will be considered as having met the requirements.

The University may grant the individual student a deferment or waiver after reviewing the necessary records submitted by the student. Waiver of this requirement may be granted in accordance with the following policies:

1. Students who are 25 years of age on or before the first day of classes of the semester under consideration.
2. Recommendation of a licensed physician. (Any student having medical restrictions yet desiring to take physical education may have a program designed exclusively for him or her by enrolling in Exercise Science, Health and Leisure Studies 025. Guidance, participation, and evaluation are structured on an individual basis.)
3. Veterans with at least one year of military service.

Students receiving a deferment or waiver of this requirement will be responsible for meeting the credit hour requirement for graduation.

IV. Foreign Language

For B.A. degree: completion of *second college year in one foreign language** Every student is advised to begin or to continue a foreign language study during the student's first year at the University or his or her first year as a candidate for the degree.

A student whose native language is not English and who is pursuing a B.A. degree will fulfill the foreign language requirement by meeting the English requirements'for foreign students: English 161, 162, 121 and 122.

V. Major

Requirements, including study in related areas, as specified by department.

VI. Minor

All candidates seeking the Bachelor of Arts degree in the College of Arts and Sciences will complete a minor within the College of Arts and Sciences. (Upon approval of the head of the major department, a student may select a minor outside of the College of Arts and Sciences. Appeals to the decision can be made to the dean.) Completion of a second major will satisfy this requirement. For students seeking the B.A. as a second degree, the previously completed major will satisfy the minor requirement. Previously approved minor courses of study will be honored for students changing majors.

Any student may complete an established minor requiring a minimum of 18 semester hours with at least 8 hours at the 300/400 level. A grade point average of at least 2.0 must be achieved in courses taken for any minor. Higher'

standards than these minimum requirements may be approved for various departments. Specific requirements for minors are listed with the departmental offerings. No more than 6 hours of credit in the major department may be applied to the minor

A student who is receiving one minor in a given department may receive a second minor from the same department provided that the second minor includes at least 12 hours of course work not included in the first minor. Philosophy, Religion, the different foreign languages and Sociology, Anthropology and Geography will be treated as separate "departments."

VII. Additional Requirements*

A. Electives to complete a minimum of 128 semester hours of credit.

Candidates for the Bachelor of Science in Engineering degree must complete 134-144 semester hours and co-op Engineering graduates will need 144-154 semester hours, depending upon the concentration.

A minimum of 30 semester hours must be completed in residence on this campus, and the final 30 semester hours must be completed in residence courses at The University of Tennessee at Chattanooga. Students who have attended a junior or community college must complete the last 60 semester hours at a four-year college or university with the last 30 hours in residence at The University of Tennessee at Chattanooga. See Academic Residency Requirements for further information. Courses taken for graduate credit may not be applied toward an undergraduate degree.

B. A minimum of 30 hours of the 128 hours needed for graduation must be earned at the 300 level or higher.

C. A minimum grade point average of 2.0 must be achieved
1. On all cumulative work undertaken and
2. On all hours attempted at The University of Tennessee at Chattanooga and
3. On all hours attempted in the major discipline. For further clarification of which courses are included in the major discipline, see the description of the major.

D. Completion of testing requirements

In order for the University to assess and improve its academic programs, periodic measurements of student intellectual growth must be obtained. As a requirement for graduation every student will be required to participate in one or two evaluative procedures, which may include examinations in general education and/or the major field of study. The evaluative information obtained through testing is one of the means used to improve the quality of the educational experience for future generations of students.**

Degree Regulations

Academic Residency Requirements

The final 30 semester hours must be completed m residence on this cam' pus. Special arrangements to allow work taken at other University of Tennessee campuses to be counted as part of this requirement must be approved by the Petitions Committee. A *minimum* of 30 semester hours, however, must be earned at UTC, with a 2.0 average required on all attempted UTC hours.

Students who attend a junior or community college at any time in their academic career must complete the last 60 semester hours at a senior college with the last 30 of those 60 completed at The University of Tennessee at Chattanooga.

Before entering professional school, students in combined programs must complete at The University of Tennessee at Chattanooga the last 30 of the 98 semester hours of undergraduate study.

Normally, nontraditional credit will not apply toward the last 30 hours of residency; however, students who have completed 30 hours of traditional course work at UTC and have not yet attempted the last 30 hours may petition to apply a maximum of 15 hours of these types of credit toward the last 30 hours. ***

New Undergraduate Residency Requirements (Effective Fall 2000)

Beginning with the Fall Semester 2000, all undergraduate students must meet the following new residency requirements. The new requirements are as follows:

1. At least twenty-five (25) percent of the minimum credit semester hours must be earned under the direction of the UTC faculty.
2. The last twenty-four (24) semester hours must be completed at UTC. With prior approval by the Dean of the student's major college, three (3) hours of credit earned at other University of Tennessee campuses may be counted as part of the last twenty-four semester hours.
3. At least forty-two (42) credit hours must be taken at the 300-400 level.
4- At least twelve (12) credit hours must be earned at the 300-400 level in the UTC program or department offering the degree.
5. At least sixty-four (64) credit hours must be taken at senior level institutions.

The current residency requirements will end with students graduating in August 2000. All students graduating after August 2000 must meet the new requirements.

Application for a Degree

The student is responsible for applying for a degree with the Office of Records not later than the beginning of his or her final year. A student who neglects to file an application must wait until the next degree-conferring period to be awarded a degree.

Limitations for B.A. Degree

No more than 42 hours in any one department may be applied toward a Bachelor of Arts degree. At least 86 hours must be completed outside any one specific department. Some departments may specify more than 86 hours.

Second Bachelor's Degree

A second **bachelor's** degree occurs whenever a student simultaneously completes **the** requirements for more than one degree (ex: B.A. and B.S.) or, after receiving one degree, returns to the university to complete another degree.

A student may receive a second bachelor's degree provided that:

1. All specific requirements for both degrees are met.
2. The curriculum for the second degree includes at least 30 hours not applied to the first degree. These hours must consist of courses taken at UTC. A grade point average of at least 2.0 is required in these courses.
3. The 30 additional hours beyond the first degree shall include a minimum of 12 hours taken at UTC in the major department of the second bachelor's degree. A grade point average of at least 2.00 is required in these courses.
4. See new residency requirements for changes effective Fall 2000.

*See pages 24-27 for additional information on academic regulations.
** Approved by the UT Board of Trustees.
***See page 10 for additional information on nontraditional credit.

PREPROFESSIONAL PROGRAMS

Combined Programs

The University of Tennessee at Chattanooga offers both three- and four-year programs leading to the bachelor's degree for students preparing for study in certain professional areas. In the four-year program die degree is granted upon completion of 128 semester hours, which include both the general education requirements and a major. Under the combined programs a student may receive the bachelor's degree from UTC after completing three years or a minimum of 98 semester hours of undergraduate study plus the first year of professional school. The combined programs available include the bachelor's degree for students preparing for the study of medicine, dentistry, or medical technology.

Before entering professional school, the student in a combined program must have completed all but 30 of the total semester hours required for the bachelor's degree. The requirements in general education and in a major must be completed as a part of this program. While transfer work may be accepted, at least the last 30 semester hours of the three-year undergraduate program must be earned at UTC.

The student is responsible for having a transcript of the first year's work at a professional school sent to the University and for filing application for the degree.

Preparation for Health Professions

Students wishing to enter dentistry, medicine, or other health fields such as cytotechnology, dental hygiene, medical technology, pharmacy, or veterinary medicine may complete their preprofessional training at UTC before going on to professional school.

For the Bachelor of Science in Nursing program, which is offered by UTC, see page 155. This is not a combined program.

The various curricula available at The University of Tennessee at Chattanooga have been prepared with the cooperation of The University of Tennessee, Memphis, and include the specific requirements for admission to the respective colleges of the health science units there. The veterinary medicine program is offered at The University of Tennessee, Knoxville.

In general, these same programs will also meet the minimum admission requirements to other professional colleges offering degrees in these health sciences. Students wishing to prepare for professional institutions other than The University of Tennessee, Memphis, should consult the catalogs of those schools to determine the specific preparation required for admission. In all cases, final decision for admission rests with the college involved.

Dentistry

Although applicants may be admitted to the College of Dentistry of The University of Tennessee, Memphis, with a minimum of 90 semester hours ^academic subjects, preference is given to those who have already completed a baccalaureate. Admissions requirements include 6 hours of English composition, 8 hours of general biology, 8 hours of general chemistry, 8 hours of organic-chemistry, and 8 hours of general physics. Upper level biology courses (selected from cellular biology, comparative anatomy, embryology, genetics, histology, microbiology, and physiology) are recommended. A minimum

grade point average of 2.5 in all required subjects attempted arid in cumulative coursework is normally required for admission. For general electives, courses in calculus, foreign language, literature, biochemistry, social sciences, and behavioral sciences are suggested.

A student in a combined program who is working toward a bachelor's degree from The University of Tennessee at Chattanooga must complete at least 98 hours, including all general education requirements, as well as requirements for a specific major offered by UTC before entering the College of Dentistry. After the successful completion of the first year at the College of Dentistry the student will be awarded die bachelor's degree from UTC.

Medical Technology (B.S.)

A student working toward die B.S. degree widi a major in medical technology from UTC must complete 98 semester hours of die program outlined on page 46, together with 30 hours from an approved school of medical technology. The last 30 of the 98 hours must be completed in resident courses at UTC.

Students should be aware that large-scale changes in health care have resulted in some changes to programs like medical technology. In particular, many of the schools or hospital offering the 30-hour clinical portion of the program required for the B.S. in medical technology here at UTC have either closed or dramatically limited access to their programs. At this time there are still several notable schools (e.g., Vanderbilt and Tennessee State) offering the 30-hour clinical program. Other schools, such as the University of Tennessee, Memphis, offer a two-year clinical program. To enter one of the two-year clinical programs, a student must complete two years here at UTC, be accepted into that program, and then transfer out of UTC to that school.

Courses required for admission to the two-year clinical medical technology program at the University of Tennessee, Memphis:

Courses	Semester Hours
English 121.122	6
Biology 121,122	8
Biology 208, 209	4
Chemistry 121,122	8
Chemistry 351,352*	8'
Math 135	3
Electives	25

*Chemistfy 466 (Biochemistry) is also highly recommended.
Recommended electives include: Communication 101; Psychology 101 and 241; a General Education Category B course; and 2 semesters of a foreign language. Note that al courses should he applicable towards a major in that subject area.

Medicine

Although most students now earn a bachelor's degree before admission to a college of medicine, some may be accepted with only three years of undergraduate work. Minimum requirements for admission to the College of Medicine of The University of Tennessee, Memphis, include 16 hours of chemistry (8 hours of general and analytical and 8 hours of organic), 8 hours of physics (mechanics, heat, light, sound, electricity, and magnetism), 8 hours of biology including zoology, and 6 hours of English composition.

Strongly recommended additional courses include advanced chemistry (analytical, physical, or biochemistry or chemical instrumentation), advanced biology (cellular biology, embryology, molecular biology, or genetics), calculus, behavioral and social sciences as well as computer science, languages, literature, philosophy, history, and etymology. A total of 90 semester hours is required for admission if a student is not working toward a bachelor's degree from The University of Tennessee at Chattanooga. A degree candidate must complete 98 hours, including all general education requirements as well as requirements for a specific major offered by UTC. The last 30 of the 98 hours must be completed in resident courses at UTC.

Preveterinary Medicine

Although no combined degree program is available in the veterinary medicine field, students at The University of Tennessee at Chattanooga may complete all of the courses required for admission to the College of Veterinary Medicine at The University of Tennessee, Knoxville. Because of the competition for admission to this field as well as to other health fields, students are advised to complete an undergraduate degree program in a major that will offer alternative career opportunities. The following preveterinary medicine courses are required.

Courses	Semester Hours
English 121,122	6
Humanities and Social Sciences (May include, for example, courses in English, literature, speech, music, art, philosophy, religion, language, history, economics, anthropology, political science, psychology, sociology and geography)	18
Math 135,136 or 150,160	6-8
Physics 103,104	8
Chemistry 121,122	8
Chemistry 351,352	8
Chemistry 466	3
Biology 121,122	8
Biology 325	3
Biology 328 (Biology 311 may be approved only if Biology 328 is not offered)	4
TOTAL	72-74

Allied Health Fields

Students planning to enter one of the other health fields can satisfy the minimum admission requirements for the respective units of The University of Tennessee, Memphis, by completing one of the following programs. These programs by themselves do not lead to a degree from The University of Tennessee at Chattanooga. Students wishing to do so, however, may count any of these courses completed at The University of Tennessee at Chattanooga as a part of the total hours required for a baccalaureate degree if they decide to continue here toward a major offered by UTC.

Cytotechnology

Three years of preparation (90 semester hours) are required for admission to this program at The University of Tennessee, Memphis. The program of study must include the following courses or their equivalents:

Courses	Semester Hours
English 121,122'and 2 additional English courses	12
Biology 121, 122	8
Biology 311	4
Biology 328 and 330	8
Chemistry 121,122	8
Advanced science (analytical chemistry, organic chemistry, embryology, comparative anatomy, genetics, and physiology)	8
Mathematics (preferably 135)	3
Social science	12
Electives*	27
Total	90

*Courses in human anatomy and physiology, physics, English, speech, mathematics, organic chemistry, and social sciences strongly recommended. A total of 16 hours must be in upper level courses. A year of American history in either high school or college is required for the degree program at UT, Memphis.

Predental Hygiene

Students may be admitted to the Dental Hygiene program of The University of Tennessee, Memphis, upon completion of 64 semester hours including the following courses or their equivalents:

Courses	Semester Hours
Biology 121,122	8
Biology 191, 208, 209	8
Biology 210 or 311	4
Chemistry 121,122	8
English 121,122 and one additional English course	9
Psychology 101 and one additional psychology course	6
Sociology 151 and one additional sociology course	6
One course from Theatre and Speech 107,108,109, 309	3
Electives*	12
Total	64

'Courses in mathematics and social sciences strongly recommended. A year of American history in either high school or college is required for the degree program at UT, Memphis.

Prepharmacy

Students may be admitted to the School of Pharmacy of The University of Tennessee, Memphis, upon completion of 66 semester hours, excluding physical education or military science, which include the following courses or their equivalents:

Courses	Semester Hours
Biology 121, 122	8
Biology 311 (Microbiology)	4
Chemistry 121,122	8
Chemistry 351,352	8
Physics 103,104	8
Mathematics 136 or 150	3-4
English 121,122	6
Communication or Speech	3
Math 210	3
Humanities	6
Social Science	6
Electives*	4
Total	67

* A year of American history in either high school or college is required for the degree program at UT, Memphis

HONORSAND HONOR SOCIETIES

General University Honors

Effective with the graduation class of December 1987, eligibility for general university honors was changed from past standards.

An undergraduate student will be graduated cum laude when the student's cumulative grade point average as well as UTC average at the end of the final semester is 3.5. With an average of 3.75 both cumulative and at UTC, the student will be graduated magna cum laude. The student with the highest average will be graduated summa cum laude if his or her average is at least 3.9. More than one summa graduate will be recognized in the event of a tie. Honors will be inscribed on the diplomas. Institutional credit will not be counted in the grade point average for graduation or honors. Grade point averages are not rounded.These standards apply to all undergraduate degree candidates regardless of the catalog under which they entered.

The University Honors Program

Each year the University Honors Program admits some 30 to 40 freshmen to join the University's most prestigious honors program. This program creates an atmosphere, both academic and social, that encourages its members to develop their capacities for intellectual, moral, and social leadership. The goal is to foster a community of scholars who benefit from each other's work and who provide the University with new ideas and ways to excellence.

In order to achieve this goal, the program provides the Honors students with a specialized general education curriculum tailored to their talents and needs (see page 97); an integrated program of social, University, and community service activities; a personal advisement system that enables each student to derive the greatest benefits from the University's ^resources; access to a private reading room and computer lab; and membership in a highly visible and respected group of students. In addition, approximately half of all Honors students receive a major four-year scholarship (see page 11).

Applicants to the University Honors (UHON) program are expected to have demonstrated outstanding achievement and promise in high school. Continuance is reviewed each semester and is contingent upon the student's academic performance. All UHON students are obligated to complete Departmental Honors (see next section). Interested high school students should complete a UHON application by December 31 of their senior year. For more information and a current application write to: University Honors Program, 202 Guerry Hall, The University of Tennessee at Chattanooga, Chattanoga, TN 37403; call (423) ,755-4128; or visit the program's website at: www.utc.edu/univhon

Associate **Honors Fellows**

Current UTC students who were not initally admitted to the UHON Program and who have completed at least 36 hours of academic credit with a GPA of 3.5 may apply for membership as Associate Honors Fellows. Although ineligible for any University Honors Scholarships, which are awarded to incoming freshmen only, Associates enjoy most of the benefits of the other UHON students, including admission to specialized UHON courses, early registration for classes, access to the UHON reading room and computer lab, and a modest stipend to spend on productions by the Chattanooga Symphony and Opera and the UTC fine arts departments and programs. Associates are also eligible to participate in annual trips sponsored by the UHON Program.

Interested students can obtain an application at the Honors Program Office, 202 Guerry Hall.

Departmental Honors

The Departmental Honors Program allows exceptional students to receive special recognition for their academic achievements. Departmental honors is bestowed upon students who have maintained high academic standards in their course work, have completed an acceptable honors thesis, and have achieved an honors pass on an oral examination. Graduation with departmental honors is recorded on the academic record and on the diploma.

The departmental honors thesis allows each honors candidate to deepen knowledge and increase skills in a special discipline. Original literary analysis, scientific experimentation, artistic expression, or other demonstration of superior proficiency or creativity are normally acceptable forms of expression for the thesis. The thesis will be defended by means of an oral examination administered by the major department. The oral defense will be on the thesis and related underlying issues of the discipline.

The chair of the departmental honors committee will appoint for each candidate for honors a member of the departmental honors committee to act as liaison. This member will be kept informed of progress by student and department, will see a copy of the rough draft of the honors thesis, and participate in the oral examination concerning the thesis.

Interested students shall consult with their advisers or departmental heads prior to the beginning of the senior year. The honors program is a two-semester program and should require substantially more work than would be required for the four hours granted were they in regular courses or other independent study courses. Formal application to departmental honors candidacy must be made during the third semester before graduation, on the first school day in March for students working in summer and fall or fall and spring terms and on the first school day in November for students working in spring and summer or spring and fall.

Forms for admission to departmental honors candidacy can be obtained from the director of University Honors, 202 Guerry Hall.

A student is not formally accepted in departmental honors until he or she receives notice in writing that the Faculty Council has approved the student's application.

Each candidate must have a copy of current guidelines and is responsible for following the guidelines. Copies can be obtained from the director of the honors program.

A progress report to the adviser and the chair of the departmental honors committee is due the Monday one week before the last week of classes in the first term of the two terms' work. The progress report must be signed by the adviser before it is sent to the departmental honors committee.

Departmental honors is normally work done by an individual. Joint interdisciplinary projects may be applied for when the work clearly involves students in different disciplines and when certain monitoring procedures are observed. Each such case will be decided on its merits by the departmental honors committee.

Admission to the program requires an overall grade point average of 3.2 and a grade point average of 3.5 in the major field. Students who do not meet the minimum grade point average requirements may be admitted conditionally to the departmental honors program, but will be withdrawn from the program if they do not meet the minimum requirements by the end of the first term in which honors is taken. Each departmental honors candidate must complete four full semesters (or a minimum of 48 semester hours of course work) at UTC prior to graduation. Honors work will receive four semester hours of credit in the appropriate courses, numbered 495r, the distribution of hours in the two terms to be one of the following options only: 1 -3, 2-2,3-1. A grade may be given for the first term or postponed by giving an IP (In Progress), which grade is to be replaced by another grade by the end of the following regular semester. The credit hours so earned will count for graduation whether or not honors is conferred. Credit earned in departmental honors courses will not be calculated as part of the 42-hour maximum in the major.

Any student who has a grade point average of 3.75 in his or her major and 3.5 overall through the next-to-last semester may become a candidate for highest honors. Standards for the thesis and departmental examination for highest honors appropriately reflect the nature of the superlative designation.

Academic Recognition and Honor Societies

The University recognizes scholarly achievement in a number of ways. The dean's list includes each semester the names of all students who achieve an average for the semester of at least 3.2 with a registration of 6 graded hours or more.

Institutional credit will not be counted in the grade point average for graduation or honors.

Academic achievement, either in general or in specific fields, is recognized by a number of organizations:

Alpha, the scholastic honor society of The University of Tennessee at Chattanooga, elects to membership seniors who have maintained a very high scholastic average. Election is by vote of the faculty members of *Alpha.*

Alpha Lambda Delta, national honor society for women and men, elects to membership those freshmen who have a 3.5 average on at least 12 graded hours in the first semester or a cumulative average of 3.5 at the end of the freshman year.

Golden Key, is a national honor society for all juniors and seniors, either full or part time, who have been at UTC for one year and who have maintained at least a 3.3 grade point average.

Mortar Board, a national honor society for senior women and men, elects to membership those who. at the end of their junior year have a minimum grade point average of 3.0 and who have demonstrated outstanding ability in leadership, scholarship, and service to the University.

Phi *Eta Sigma*, national honor society for men and women, elects to membership those freshmen who have a 3.5 average on at least 12 graded hours in the first semester or a cumulative average'of 3.5 at the end of the freshman year.

Honor societies in specific areas include:

Alpha Kappa Delta (sociology)
Alpha Mu *Alpha* (marketing)
Beta Alpha Psi (accounting)
Beta Beta Beta (biology)
Beta Gamma Sigma (business administration)
Delta Omkron (music)
Delta Tau Omega (geology)
Financial Management *Association* (finance)
Gamma Sigma Epsilon (chemistry)
Kappa Delta Pi (education)
Kappa Omicron Phi (home economics)
Lambda Alpha Epsilon (criminal justice)
Lambda lota Tau (literature)
Omicron Delta Epsilon (economics)
Phi Alpha Theta (history)
Pi Delta Phi (French)
Pi *Gamma* Mu (social sciences)
Pi Mu Epsilon (mathematics)
Pi *Sigma Alpha* (political science)
Psi Chi (psychology)
Scabbard and Blade (military science)
Sigma Delta Pi (Spanish)
Sigma lota Epsilon (business management)
Sigma Pi Sigma (physics)
Sigma Theta Tau (nursing)
Sigma Xi (sciences)
Tau Beta Pi (engineering)
Upsilon Pi Epsilon (computer science)

GRADUATE STUDIES

The Graduate Division is the administrative unit which coordinates and supervises activities relating to the graduate degrees offered by The University of Tennessee at Chattanooga.

Graduate Degree Programs Offered

M.A.	English: Literary Study or Professional Writing
M. Ace.	Accountancy
M.B.A.	Business Administration, Accounting, Economics, Entrepreneurship.Finance, General, Health Services Management, Human Resources Management, International, Management InformationSystems, Marketing, Operations/ Production or Organizational Management (includes Executive M.B.A. Program)
M.Ed.	Administration & Supervision: Elementary or Secondary; Elementary Education: Art, Early Childhood Education, Elementary, Inclusion, Special Teacher of Reading, Research, Licensure; Guidance and Counseling: Community, School Counseling; Secondary Education: Art, English, Health Education, Inclusion, Mathematics, Physical Education, Science and Environmental Studies, Social Science, Research, Licensure; Special Education: Mild Disabilities, Moderate/Severe Disabilities, Emotional/Behavioral Disabilities, Early Childhood, Individual and Gifted.
M.M.	Music: Education or Performance
M.P.A.	Public Administration
M.P.T.	Physical Therapy
M.S.	Athletic Training; Computer Science; Engineering: Chemical Sciences, Civil, Electrical, Industrial, or Mechanical; Engineering Management; Environmental Science; Psychology: Industrial/ Organization, School, or Research
M.S.C.J.	Criminal Justice
M.S.N.	Nursing: Administration, Anesthesia, Clinical, Education, Family Nurse Practitioner
Ed.S.	Advanced Educational Practice: Educational Technology, Educational Leadership

Anyone holding the baccalaureate or higher degree who wishes to take courses must make formal application for admission through the Graduate Office. Those who do not qualify for graduate admission or who elect to pursue a second bachelor's degree may be admitted as conditional, non-degree, or post-baccalaureate students.

For more information concerning a specific degree program, please refer to the appropriate department and the UTC graduate catalog. Also visit the web site at: www.utc.edu/gradstudies

For application materials, write

Office of Graduate Studies, Dept. 5305
114 Race Hall
615 McCallie Avenue
Chattanooga, Tennessee 37403-2598

UTC Seniors

A senior who is within 30 semester hours of completing requirements for the bachelor's degree at The University of Tennessee at Chattanooga may apply for admission to graduate courses if the applicant has an overall grade point average of 3.0 (B) or higher and is recommended by the head of his or her major department. With the approval of the dean of graduate studies, a student may earn up to six semester hours of graduate credit prior to completing the bachelor's degree. Such approval must be obtained each semester by completing the special application form which isavailable in the Graduate Office. The approved application must be submitted to the Registration Office prior to the time of registration. Courses taken for graduate credit may not be applied toward an undergraduate degree.

Teacher Licensure

Students seeking initial licensure are encouraged to apply for the master's program in Initial Licensure. Those seeking endorsement or renewal of licensure may be classified as non-degree students.

Post-baccalaureate Admission

Post-baccalaureate is an undergraduate admission classification which indicates that the applicant has a baccalaureate degree. A student who does not qualify for graduate admission because of an inadequate grade point average should inquire in the Graduate Office about a conditional admission status.

Admission as a post-baccalaureate student does not guarantee admission to a degree program. In addition, courses completed under post-baccalaureate admission do not count toward a graduate degree.

Second Bachelor's Degree

A student may receive a second bachelor's degree provided that all specific requirements for both degrees are met, that the curriculum for the second degree includes at least 30 hours (completed with a 2.0 average) not offered for the first degree, and that an additional year is spent in residence. Students desiring a second bachelor's degree should apply in the Adult Services Center.

Student Services

SlUDbNl SERVICES

Bookstore

The University Bookstore has two locations operated by Barnes & Noble Bookstores, Inc. The main store is located in Guerry Center. The bookstore offers new and used textbooks for all courses and all required supplies for classes. The Blue & Gold Shoppe located in the University Center has a variety of candy, snacks, class supplies, and gift items.

The University Bookstore also operates the mini-market located in the main bookstore with extended hours to meet all the student's shopping needs with grocery items, frozen foods, candy, and school supplies.

Services provided include daily book buyback with price paid on a wholesale basis. Prices are higher at the end of the semester and may fluctuate depending on inventory needs of the bookstore for the next semester. The bookstore accepts MasterCard, Visa, American Express, Discover Card, and the UTC Mocs Card.

Check Cashing Service

The Bursar's Office provides a Check Cashing Service for students, staff, and faculty. A validated UTC ID or a current fee paid receipt and a valid drive's license must be presented along with checks. Personal checks are cashed up to $50 by the Bursar's Office. Only one check per person per day may be cashed.

Counseling **and Career** Planning

The Counseling and Career Planning Center at The University of Tennessee at Chattanooga offers a variety of services to students. These services include personal, vocational, academic counseling, and crisis intervention, for individuals and groups. Consultation services, workshops and other programs are developed and available for the university community.

The staff of the center includes professionally trained counselors and a psychologist, who have achieved appropriate certification and/or licensure at the state and national levels. Graduate students work under the supervision of the center's professional staff.

Programs and services include: Career Planning; Personal Counseling; outreach Programs/Workshops; Consultation; and Testing. Information on a wide variety of careers, opportunities, graduate schools, and career development is available from books, pamphlets, audio and video resources, and computers. The center also serves as a practicum site for graduate students in counseling, psychology, and political science. Counseling, consultation, or use of resource materials are provided without charge. There is, however, a minimal charge for testing materials.

The services of the Counseling and Career Planning Center are confidential.

The Counseling and Career Planning Center holds a full accreditation through the International Association of Counseling Services. Inc. Location and hours: Counseling &. Career Planning Center, Room 226 University Center, (423) 755-4438, Monday through Friday 8 A.M.- 5:0Q P.M.

Student **Dining** Plans

Marriott Education Services manages our food services on UTC's campus. The cafeteria opens each weekday at 7:00 a.m. They offer flexible meal plans to meet your personal needs. Branded Concepts are available such as Pizza Hut, Taco Bell and Subway. Daily specials and monthly promotions are offered on a regular basis. There is also a cart available for services at the University Center. Employment opportunities are also available. For more information please contact Marriott at (423) 755-4200 or visit the ID Card Center located in the University Center.

Physically Challenged Student Services

On June 26,1990, The Americans With Disabilities Act (ADA) was signed into law. This act further reinforces Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination against persons with disabilities. ADA mandates that accommodations and adjustments be made in programs and activities in order to provide equal access to qualified persons with disabilities. The Director of Affirmative Action, Dr. Barbara Wofford, holds the responsibility of ensuring University compliance with

ADA. The University requests the appropriate documentation of the disability from students. Students requesting assistance, please contact the Accessible Academic Accommodations Office at (423) 7554006.

Health Services

Student health services are provided by certified family nurse practitioners under the medical direction of a group of local physicians. Clinic hours are 8:00 a.m. -1:00 p.m., Monday through Friday, 1:00 - 5:00 p.m. by appointment. Emergency first aid is available to the entire University community from 8:30 a.m. - 5:00 p.m., Monday through Friday. The scope of services includes office visits *for* general illnesses, allergy injections, flu immunizations, *hepatitis* B immunizations, Tb skin testing, physical exams, lab services, educational programs, counseling, and referrals. All currently enrolled University students are eligible for health services. The student is responsible for all fees for referral services such as emergencies, hospitalization, surgery, X-rays, lab work, and medicines. The university recommends that the student obtain separate hospitalization and medical insurance. A health insurance policy is available through the university and covers a schedule of expenses for surgery and hospitalization in case of accident and illness. All international students are required to enroll in the insurance program. Information about this policy is mailed to students in the summer. The insurance policy information is also available in Student Health. For other information concerning Student Health Services or to schedule an appointment, please contact Rhonda Bovine, RNC, MSN, FNP, Director at (423) 755-4453.

Housing

Applications for housing may be obtained from the Housing Office. Housing contracts are a commitment for the academic year, August to May, or for shorter periods as required by midyear registration or certain special academic programs, if arranged for in advance. Students who wish to cancel their housing contract may do so only after approval has been granted by the Housing Office. Cancellations are subject to additional charges and penalties as stated in the contract.

The University offers a program of differentiated housing which allows students the option of living in facilities with different types of programming and supervision. Further information concerning the details of these plans is available from the Housing Office and is sent with the housing application.

Mocs Cards

The University provides each student with an official University ID card, the Mocs Card. This card is used to gain admission to athletic events, to check out books from the library, to obtain special rates and privileges at many University functions, and to indicate the individual's right to use University facilities.

Mocs Cards for new students are made at registration. Mocs Cards are also a debit card for purchasing at the following locations:

- Food Services
- Bookstore
- Parking
- University Ticket Office
- Fine Arts Ticket Office
- Arena Ticket Office and Concessions
- Select copy and vending machine locations.

Students deposit a minimum of $50 to open a debit card balance. Additional monies can be added at anytime in $20 increments. UTC deposits can be made in the form of cash, check and Visa or Master Card.

The Mocs Card Center is downstairs in the game room area of the University Center. Office hours are Monday-Friday, 9:00 a.m.-4:00 p.m. Hours are extended the first two weeks of each semester, 8:00 a.m.-6:00 p.m. The telephone number is 423-785-2218, fax: 423-755-4795, or email address is UTCID@utc.edu

One card is intended to last throughout a student's entire stay at UTC. Lost or stolen ID cards should be reported immediatly to the bookstore, food services, campus security or ID office. Replacement cards are made at the ID office for a cost of $10. No fee is charged for first ID Card or to use the ID Card as a debit card.

Placement Services

Located in the University Center, the Placement and Student Employment Center assists degree candidates, alumni, and students in securing full- and part-time employment. The service is available year round.

Student Handbooks

Distributed at the beginning of each academic year, the Student *Handbook* provides detailed information on student services. It also contains information on the Student Government Association and specific rules for the purpose of regulating campus life. These rules are stated in the Honor Code, Student Conduct Code, and other codes regulating groups.

Student Tickets

A validated student ID card with a picture provides admission to the regular season home football, basketball, and wrestling events. These seats are in the student section and are not reserved. Students take these seats on a first-come basis and the number of seats in the student section is limited to a specific figure.

Student guest tickets: A student may purchase a guest ticket at a discount price to each home football and basketball game. These tickets may be purchased at the University Center Ticket Office. The guest must sit in the student section.

Spouse tickets: A student may purchase a spouse or guest ID with a picture for $15 per semester. These may be purchased at the University Center Ticket Office.

Statement of a Drug-free Environment

The University of Tennessee is committed to ensuring that it is safe and free from the illegal use, manufacture, possession, distribution, or dispensing of controlled substances (as defined in the Controlled Substances Act, 21 U.S.C. Section 812). To accomplish this, the university has established a student drug abuse prevention program through the Office of Student Affairs. Further, students are subject to a Code of Conduct pertaining to use or possession of controlled substances, and recipients of certain federal financial assistance such as Pell Grants will be required to certify that they will be drug-free during the pendency of the Grant.

Measles Immunization
The state of Tennessee requires that all students born after 1956 provide the university documentation of immunization with two (2) live measles vaccinations after age 12 mos., unless contraindicated due to pregnancy, allergy to vaccine, or other valid medical reason. A verification of immunization, signed by a health care provider, should be returned to Student Health Service prior to registration for classes.

Copy and Mail Services
Xerox Business Services has joined UTC in the management of The UTC Document Source Center, Printing Services, and Mail Services throughout the University. Mail and copy services are located in the Administrative Building, 400 Palmetto St., with a satellite center located at the University Center. The UTC Document Source Center and Mail Services are open Monday through Friday, 8 a.m.-5 p.m. The University Center copy center is open Monday through Friday, 8 a.m.-5 p.m. Satellite copiers are located throughout the University.

Mail Services consist of faculty, staff, and student mail pickup and delivery Monday through Friday as well as pickup and delivery of print jobs. The following services are available: fax service, overnight mail service, copying, color copies, booklet making, and special projects. Assistance for services can be'obtained by contacting:

University Center copy center, 757-1708
Document Source Center Help Desk, 755-4092
Mail Services, 755-4137
We can also be contacted by fax at (423) 755-5349.

GENERAL REGULATIONS

Family Educational Rights and Privacy Act
A student's record is regarded as confidential, and release of the record or of information contained therein is governed by regulations of the federal law on "Family Educational Rights and Privacy." Only directory information, such as a student's name, address, telephone listing, major fields of study, participation in officially recognized activities and sports, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student, may be released by the institution without consent of the student unless the student has asked UTC to withhold such information. The law also provides for the release of information to University personnel with a legitimate educational interest, other institutions engaged in research (provided information is not revealed to any other parties), and certain federal and state government officials.

A student may inspect and review records and is entitled to challenge the content of records. However, the student may be denied access to a parent's financial statement and to confidential letters and statements of recommendation which were placed in the University's records prior to January 1, 1975.

Honor Code
The Honor Code is based upon the assumption that the student recognizes the fundamental importance of honesty in all dealings within the University community and that education is a cooperative enterprise between student and teacher and between student and student. Any act of dishonesty violates and weakens this relationship and lessens the value of the education which the student is pursuing. The Honor Code and the Honor Court and its procedures are detailed in the Student *Handbook.*

Records
The Office of Records and Registration maintains an academic record on any student who has ever attended UTC. This record includes the student's name, Social Security number, birthdate, and credits from other colleges. It includes all courses which a student has taken at UTC with credit hours, grades, and cumulative grade point average. Academic suspension or dismissal is recorded as well as academic probation.

Transcripts
Transcripts of a student's record are released only on the student's written authorization. Each transcript costs $2. Transcripts issued to other UT campuses are free. Requests should be made to the Office of Records and Registration in advance of the date on which the transcripts are needed. The processing of transcripts may take as long as two weeks at die beginning or end of a term.

Transcripts are not released for students who have an indebtedness of any type to the University or who owe any fines.

Accommodations and Assistance
Students with disabilities who may require assistance or accommodations or students who have related questions concerning testing, note takers, readers, and etc., should speak to their individual professors as soon as the semester begins. Students may also contact the College Access Programat (423) 755-4006.

College of Arts and Sciences

Professor Summerlin, Dean

Anthropology

See *Sociology, Anthropology, and Geography.*

Art

Professor White, *Head*

The Department of Art, an accredited member of the National Association of Schools of Art and Design, enrolls students in one of three four-year degree options: a Bachelor of Fine Arts degree with concentration options in Graphic Design, Painting and Drawing, or Sculpture; a Bachelor of Science degree in Art Education, and a Bachelor of Arts degree. Selection of an area of study is based on an individual's professional objectives, however each program in the department follows a carefully structured and sequential curriculum. It is the intent of the department to have available a facility and resources appropriate for the level of professional preparation of its degree options.

The Art Department reserves the right to keep one example of the work of each student in each course. Sophomore year portfolio review is required.

Art (B.F.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121,122 (6 hours)
Intensive Writing: ENGL 300 (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) *and* Nonwestern Cultures and Civilizations (3 hours) OR option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: ART 214, 215 (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major

86 hours art including 101,102, 104,105,106, 205; 9 hours (from courses other than those required for one of the concentration below) from: 203, 206, 207,208, 260,281, 233, 244, 305,306; 6 hours art history from 314, 315, 414,431,432 and Art 491.
Student must complete one area of concentration as follows:
Graphic Design: 260, 271, 281, 361,362,371,380,465, 466,471.
Painting & Drawing: 206, 207, 208, 303r, 307,308,405,406,407,408,409.
Sculpture: 233, 235, 244,336, 337,338, 344,437,438,439,440.
Remaining hours in art to total 86.
Portfolio review, Sophomore year.
2.5 GPA minimum in art courses
Participation in senior art exhibition

Minimum of 30 hours of 300 and 400 level courses
Total Hours 131

Art Education (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: ENGL 279 (3 hours)
Oral Communications: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilizations I, II, and III (9 hours)
Humanities and Fine **Arts:** ART 214, 215 (6 hours)
Behavioral and Social Sciences: PSY 101, plus one Social Science (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 123 (3 hours)
Statistics: One approved statistics course (3 hours)
Exercise Science, Health and Leisure Studies: 021 plus one additional semester exercise science activity.

Major and related courses

Philosophy 201
Philosophy 336
Psychology 221

54 hours art including 101,102, 103,105,106,203,205,207,214,215,233, 323,324,490; 6 hours from Art 314,315,414,431,432; and 6 hours in one studio concentration.
25 hours in professional education including Education 201,321,433,444r, and Education Psychology 400.
For graduation: 2.0 average in art and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 average cumulative, 2.5 average at UTC, and 2.5 average in education courses with no grade lower than C, 2.5 in content area with no grade lower than C.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 133 hours

Art (B.A.)

General Education Requirements (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121,122 (6 hours)
Intensive Writing: ENGL 300 (3 hours each)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours) *and* Nonwestem Cultures and Civilizations (3 hours) *or* Option (b) World Civilizations I, II, III (9 hours)
Humanities and Fine Arts: ART 214, 215 (3 hours)
Behavioral & Social Sciences: Two approved behavioral or social sciences courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved staticists course (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity
Foreign language through second college year
Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major

42 hours art including 101,102,105,106, 203, 207, 233; 214,215, and 3 additional hours from 314,315,414,431,432; 3 hours from 205, 208, 260, 281,303r, 305,306; 3 hours from 235, 244; 6 additional hours in studio electives from 300/400 level.
Participation in senior art exhibition
2.0 average in all art courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

ART MINORS

Graphic Design (24 hours):
Art 101,105, 260, 271,281; 9 hours from 361,371,380,471.
Minimum 2.0 average in the minor.

History of Art (18 hours):
Art 214,215; 6 hours from 314,315,414,431,432; 6 hours (3 of which must be at the 300/400 level) from American Studies 200; Classics 396; English 203, 204; Philosophy 336; History (any 300/400 level course).
Minimum 2.0 average in the minor.

Painting (24 hours):
Art 104,105,106, 207, 208; remaining 9 hours in painting at the 300/400 level.
Minimum 2.0 average in the minor.

Printmaking (24 hours):
Art 101,104,105,106,203; remaining 9 hours in printmaking at the 300/400 level.
Minimum 2.0 average in the minor.

Sculpture (24 hours):
Art 102 (101 waived for the sculpture minor), 105, 233, 235,244; remaining 9 hours in the three-dimensional area at the 300/400 level.
Minimum 2.0 average in the minor.

ART COURSES

101 Visual Studies I: Form in Two Dimensions (3)
Color concepts and the visual elements, principles, and factors of organization as they apply to two dimensional design. Fall semester. Studio *hours* 6. Corequisite: *105 for the art major or* approval *of* department *head.*

102 Visual Studies II: Form in Three Dimensions (3)
Studio experience with visual and tactile components of three dimensional design. Basic problems involving relief, mass, freestanding form, and principles and factors of 3-D organization. Spring semester. *Studio hours* 6. *Prerequisite: 101; Corequisite:* 106 *for the art major or approval of department head.*

103 Introduction to Art Education (3)
Examination of a broad range of historical and philosophical issues in art .' education. Designed to help the student discover values in art education. Lectures, readings, reports, and discussion. On demand.

104 Visual Studies 111: Color Theory and Fundamentals (3)
An introduction to color perception and to the principles of color application on a two-dimensional plane. Basic theoretical systems, harmonic systems, pigment and color mixing, color interaction; historical, psychological and symbolic implications. Spring semester. Prerequisite *for* the art major 101. Studio hours (6).

105 Drawing I (3)
Introduction to drawing and pictorial composition using basic drawing media in black and white. Primary emphasis on line, form, value, texture, space, shape, and one-point and multiple-point perspective. Fall semester. *Corequisite: 101 for the art major or approval of department head. Studio hours 6.*

106 Drawing II (3)
Continuing work in drawing with the introduction of color media in pictorial composition. Primary emphasis on analytical skills, cognitive development, development of critical skills, and the exploration of alternative techniques and media. Spring semester. Studio hours 6. Prerequistie: 105. Corequisite: 102 *for the art major or approval of the department head.*

I11 Introduction to Art (3)
Designed to heighten perception, appreciation, and enjoyment of the visual arts of the western world, this course examines selected works representative of a broad range of functions, forms, styles, and artistic intentions from prehistoric to present day. Consideration of the formal elements, design principles, and technical factors of significance in the production of works. Every semester. For *the* non-art major.

199r Special Projects (1-4)
Every semester.

203 Introduction to Printmaking (3)
Survey of printmaking history and processes. Limited studio experience in basic techniques of relief, intaglio, lithography and screen printing. Spring semester. Prerequisite: Art 102, 106, or *approval of department head. Studio hours 6.*

205, 206 Drawing III, IV (3,3)
Figure, landscape, and still life subjects approached from the stand point of their compositional and expressive possibilities. Experimentation with various media. Study of art anatomy. 205 fall/206 spring semester. Prerequisites: 101, 105, 106. Courses are sequential *for art majors; 205* prerequisite to 206.

207, 208 Painting I, II (3,3)
Painting of still life, landscape, and abstract compositions in oil emphasizing color relationships and composition as essential means of pictorial expression. 207 fall semester/208 spring semester. *Prerequisites for art majors: 101, 105,* 106. Courses are *sequential for art majors; 207 prerequisite to 208.* ?

214 The History of Western Art from Prehistoric through Medieval (3)
Designed to heighten perception, appreciation, and enjoyment of the visual arts of the western world, this course examines selected works representative of a broad range of functions, forms, styles, and artistic intentions. The visual arts of the Prehistoric, Ancient Near Eastern, Egyptian, Greek, Roman, Early Christian, Byzantine, Romanesque, and Gothic peroids will be introduced. The art historical development, formal elements, design principles, and technical factors of significance in the production of works. Fall semester.

215 The History of Western Art from the Renaissance to the Present (3)
Designed to heighten perception, appreciation, and enjoyment of the visual arts of the western world, this course examines selected works representative of a broad range of functions, forms, styles, and artistic intentions. The art of the Renaissance, Baroque, Rococo, and Romantic peroids, and of the various movements of the modern era in the 19th and 20rh Century are the focus of this survey. Consideration of the formal elements, design principles, and technical factors of significance in the production of works of this peroid. Emphasis will be placed on the relationship of art and society. Spring semester. **Prerequisite:** ***214. For the art and interior design major, or with the*** **permission** ***of the department head.***

222 Teaching Art Appreciation in the Elementary Classroom (3)
Emphasizes importance of art appreciation in the public school at the elementary level. Focus on teaching skills appropriate for the appreciation of the visual arts. Application of traditional and new media at the elementary level of instruction. Every semester.

223 Teaching Art Appreciation/Field Experience (1)
The application of teaching skills related to the appreciation and knowledge of visual arts for the elementary age child through field experiences and seminars. This course will concern itself with curricular and media development. Every semester. Prerequisite: *222.*

227 Introduction to Crafts (3)
Studio work in a number of craft areas: metals, fibers, and clay. Discussion of historical and contemporary trends in crafts. On demand. Studio *hours* 6.

233 **Sculpture** 1 (3)
Emphasis on basic sculpture processes and materials associated with mold making, casting, carving, and fabrication (construction). Fall semester. Prerequisites: Art *102. Studio hours* 6.

235 Metals 1(3)
An introduction to the design and fabrication of jewelry and small metal objects. Exploration of techniques in construction, decoration, and finishing. **Spring semester.** ***Prerequisites:*** **Art 102, 106,** ***233. Studio hours*** **6.**

244 Ceramics I (3)
Problems in the hand methods of forming clay and use of the potter's wheel. Study of form, color, and texture with a concern for basic ceramic technology. **On demand.** ***Prerequisites: 101,105,*** **106 or** ***approval of department head. Studio hours*** **6.**

260 Drawing for Graphic Design (3)
Drawing for the graphic designer, focusing on observation, analysis, and visual representation of 3-D form in 2-D space. The design process is followed from concept through completion including the development of hand skills with design tools, systems and production methods. Fall semester. Prerequisites: Art **102, 106.** ***Studio hours 6.***

271 Basic Typography (3)
An introduction to typography as a means of visual communication. Emphasis on uniting aesthetics with visual clarity. Innovative solutions to applied problems concerning the organization of textual information, with particular emphasis on composition. Introduction to technical information regarding typographic specification. Manual and computerized production techniques. Spring semester. Formerly Art 261. Prerequisite Art 260. *Co-requisite 275 Studio* ***hours 6.***

281 Photography (3)
Introduction to black and white photography as an art form with emphasis on composition. Basic camera operation, film processing, and darkroom printing. Adjustable lens camera required. Every semester. *Prerequisites:* Art *101. Credit* ***not allowed*** **m both Art** ***281 and 251 •***

290 Digital Media (3)
An introduction to the computer as a means of visual communication. Emphasis on uniting aesthetics and visual clarity within the context of digital media. Introduction to a variety of computer software and hardware. Every semester. Studio hours 6. Prerequisites: Art 101,106, or approval *of department* ***head.***

301 **Art Structure** (3)
An exploration of the visual arts to enhance critical perception and appreciation of art with experiences in describing, analyzing and compairing various examples. Involves studio experiences in painting, drawing, sculpture, and other media as well as written work in art history and contemporary rheory and criticism. Every semester. For tlie non art *major.*

303r Watercolor (3)
Basic techniques in transparent watercolor with emphasis on materials, process, and composition. Fall semester. *Prerequisite:* Art 102, 106, *207• Studio hours* 6.

305 Printmaking: Intaglio (3)
Work **in** single and multi-color intaglio processes, including line etching, acquaint, and photo-intaglio. Fall semester. *Studio hours* 6. Prerequisites: 101, **102,** ***104, 106, 203, or approval of department head.***

306 Printmaking: Lithography (3)
Work in single and multi-color lithography using hand-drawn and photographic methods. Fall semester. *Studio hours* 6. *Prerequisite: 101, 102,* ***104, 106, 203 or approval of department head.***

307,308 Painting III, IV (3, 3)
Figure, still life, and landscape composition in oil, watercolor, acrylic, and mixed media. Problems in analytical study and creative interpretation. On **demand.** ***Studio hours*** **6. Prerequisites: 208. Courses are** ***sequential, 307 prerequisite to 308.***

314 The History of Modern Architecture (3)
American architecture from the late 18th century to the present. Begins with the French "Visionary" architects, proceeds to the British Arts and Crafts Movement, German Expressionism, American Period revivals, and International Style. Also covers Art Nouveau, Art Deco, Frank Lloyd Wright and the Prairie School, progressive architecture in Holland, Italy, and Japan, and advent of Post Modernism. Emphasis on the relationship between architectural and socio-political scenes of the modern world. Fall semester alternate years.

315 History of Modern Painting and Sculpture (3)
A survey of the last 100 years of western painting and sculpture from Post-Impression to Post-Modernism. On demand. Prerequisite: 215.

323, 324 Materials and Procedures in Art Education (3,3)
Exploratory activities designed to acquaint the prospective teacher of art with a representative range of appropriate art materials and the procedures which promote their effective use in grades one through twelve. First semester: elementary, grades one through six. Second semester: secondary, grades seven through twelve. Two-dimensional and three-dimensional studio projects, lectures, and discussion included in both courses. 323 spring/324 fall semester alternate years. Prerequisite to studentteaching.

336 Sculpture IL (3)
Continued work in sculpture processes which utilize metal as a primary material. Casting, welding, metal fabrication (construction). Spring semester Prerequisite: *233, 235.*

337, 338 Three Dimensional Studio **I, II** (3, 3)
Development and exploration of contemporary concepts and media in the 3-D studio areas. On demand, courses are sequential. Prerequisite: Art *233, 235,* ***244.***

340 Visual Arts for Children (1)
Implementation of discipline based visual arts concepts for the child. Fall and Spring semester. Prerequisite: Thsp 115, Psy 221 or Heco *241, Art 301, Musk* ***111. Co-requisites: Music340, Thsp340.***

344 Ceramics II (3)
Development of student's individual style through use of design elements and technical skill. Kiln use and general laboratory techniques. On demand. ***Prerequisite: 244. Studio hours 6.***

361 Processes and Materials for Graphic Design (3)
Investigation of the concept and application of design through commercial formats. Budget constraints of print media. Design and production of mechanicals for various print processes. Skills, craftsmanship, and visual aesthetics are emphasized. Spring semester. *Prerequisite:* Art *271, 380. Studio* ***hours*** **6.**

362 **Illustration for Graphic** Design (3)
A consideration of the image as visual communication. Design of graphic idioms: poster, book cover, and broadside. Coordination of text and image. Spring semester. Prerequisite: 205, 271. *Studio hours 6.*

371 Intermediate Typography (3)
A continued study in theoretical and applied issues of typography, focusing on creative and innovative use of type selection and specification. Typography as visual communication. Fall semester. Prerequisite: *271* • *Studio hours* 6.

380 Photography **for** Graphic Design (3)
Photography as a medium for design and presentation. Application of reproduction methods for the graphic arts field using photographic tools as a form of a design aesthetic. Fall semester. Prerequisite: Art 281, 260. *Studio hours* 6.

381 Color Photography (3)
Introduction to the principles and theory of color photography. Techniques covered are color film processing, color printing, slide presentations, and applied technology. Exploration of media for creative expression. On demand. Prerequisite: 281 or Approval *of department head. Studio hours 6.*

401 Visual Arts **Internship** (3)
Practical experience in a professional environment to provide individuals with the opportunity to be supervised in art-related agencies. These would include, but not be limited to, advertising and media industries, art museum operation, gallery management, etc. Every semester. *Prerequisite: declared major, 75 accumulated credit hours* minimum, *21 hours in art, approval of department head during the preceding* semester.

405, **406** Drawing V, VI (3, 3)
Individual problems in the application of drawing techniques and styles. Continued exploration of life drawing from the human figure. On demand, courses are sequential. Prerequisite: Art 206. *Studio hours* 6.

407,408 Painting V, VI (3, 3)
Development of individual style in painting through selected media, conceptual intent, and compositional approaches. On demand, courses are sequential. Prerequisite: Art 308. *Studio hours* 6.

409 Senior Studio in Painting and/or Drawing (3)
Selected problem in painting or drawing to further the development of a student's aesthetic, and which culminates in a body of work of exhibition quality. On demand. Corequisite: Art 408. *Studio hours 6.*

414 Major Trends in American Art (3)
The visual arts of the United States including the arts of the European settlers and die first generation Americans of the Colonial Period, the great portraitists of the Revolution and the 19th century, the 19th century landscapists, the pioneer modernists of the early 20th century, and the regionalists of the '30s. Culminates with the first American style to achieve international significance, the New York School, and the resultant dominance of American art in the world today. Spring semester. Prerequisite: 2**1**5.

431, 432 Arts of the Far East (3,3)
A selective presentation of the visual arts of China, Japan, India, and other culturally significant regions of Asia. First semester devoted to the earlier phases of Chinese and Japanese art and the art of India from the Indus Valley Civilization through the Medieval period. Second semester presents developments in China from the Han Dynasty onward, and in Japan from the Heian period to the present. On demand. Courses need not be taken sequentially.

437, 438 Three Dimensional Studio III, IV (3, 3)
Directed study of student-selected 3-D problems and processes with primary focus on non-traditional forms. On demand. Courses are sequential. Prerequisite: Art 338.

439 Advanced **Three** Dimensional Studio (3)
Directed study of student-selected 3-D problems and processes with emphasis on development of personal aesthetic. On demand. *Prerequisite or corequisite: Art 437.*

440 Senior Studio in Sculpture (3)
Selected problems in the 3-D area to further the development of a student's aesthetic, and which culminates in a body of work of exhibition quality. On demand. Prerequisite: An 439.

461 **r** Printmaking: Special Topics (3)
Advanced study in printmaking to further the development of a student's aesthetic and culminating in a body of work of exhibition quality. On demand. Six studio *hours. May not repeat the same topic.* Prerequisite: Art *203 and upper division* standing in the major or permission *of* department *head.*

465, 466 Problem Solving in Graphic Design (3, 3)
Advanced study in graphic design, focusing on applied problems. Emphasis on formal, intellectual, aesthetic and pragmatic issues. Problems integrating word and image, organization of information, visual interpretation. Work leading to significant portfolio development. Fall and Spring semester. Courses are sequential, 465 prerequisite to 466. Studio hours 6.

471 Advanced Typography (3)
Computer applications for typography. Advanced study in typography composition. Techniques in manipulation of type. Spring semester. Prerequisite: Art 371.

490r Seminar in Art Education (3)
Emphasis on contemporary issues in art education. On demand.

491 Senior Exhibition Experience (2)
A collective, collaborative sequence to plan, design, and install a gallery exhibition required for all graduating seniors majoring in art. Emphasis on group interaction and co-ordination, cooperative learning, problem-solving skills, exhibition and gallery design. Every semester. Prerequisite: senior standing in the major.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. See "Departmental Honors," page 36.

497r Research (1-4)
Every semester.

498r Individual Studies (1-4)
Every semester.

499r Group Studies (1-4)
Every semester.

Biological and Environmental Sciences

Professor Nelson, *Head*

The Department of Biological and Environmental Sciences offers three majors: a B.S. in biology, a B.S. in medical technology and a B.S. in Environmental Science. The course requirements are listed below.

Students are urged to consider attendance at the institution affiliated with UTC's Department of Biological and Environmental Sciences that offers field course experience in the life sciences: Gulf Coast Research Laboratory, Ocean Springs, Mississippi, offering courses in marine biology.

Preprofessional programs in dentistry, medical technology, medicine, cytotechnology, dental hygiene, pharmacy, and veterinary medicine are described in the Preprofessional Programs section of the catalog.

Biology (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Compositions 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: Englisrr>278 (3 hours)
Oral Communication: Theatre and Speech 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or
Option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours, approved related course below will apply)
Statistics: Mathematics 210 (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Foreign language through 102 (first college year)
Mathematics 131,136 or 144, 136,145, 151/152
Chemistry 121, 122, 351, 352;

Biology - 38 hours including 121, 122, (A grade of C or better must be earned in 122 in order to take courses beyond the 100 level, for which 122 is a prerequisite), 325 (326 required for the molecular concentration but is an elective for all other concentrations), four laboratory courses above the 100 level, 3 hours of a single, formal lecture or laboratory course at the 400 level.

No more than 4 hours of 497r and/or 498r may be counted as part of the 38 hours of biology.'
2.0 average in major and related courses (excluding Biology 210)

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Each Biology major must also complete the requirements for one of the following concentrations. Specific courses for each concentration will be selected from the following four categories:

Botany: 207, 351, 352
Zoology: 312,313,330,340,342,403,408,425,456,457
. Ecology and Evolution: 306-7,315,416,450, ESC 406
Cell and Physiology: 304,311,323,326,412,420,428,463

General Biology Concentration
Physics 103/183, 104/184 or Geology 111/181, 112/182; Physics 103/183, 104/184 recommended for prospective graduate students
Biology:
Botany (select I course) - 207,351, 352
Zoology (select I course) - 312, 313,330,340,342,403,408,425,456,457
(Courses offered in Botany and Zoology at Gulf Coast Research Laboratory may be substituted. Permission of the department head required.)
Ecology and Evolution (select 1 course) - 306-7, 315,416,450, ESC 406
Cell and Physiology (Select I course) - 304,311,323,412,420,428, 463
Recommended electives: Chemistry 341,466

Preprofessional Concentration (Premedical, Predental)
Chemistry 466
Physics 103/183,104/184
Biology:
Botany (select 1 course) - 207,351,352
Zoology (select 1 courses) - 313,330,403
Ecology and Evolution - (select 1 course) 306,315,416,450
Cell and Physiology (select 2 courses) 311, 323,428
One additional course to be chosen from
Zoology - 312,313,330,340,342,403,408,425,456,457
or
Cell and Physiology - 304,323,412,420,463
Recommended electives - Classics 300

Ecology Concentration
Physics 103/183, 104/184 orGeology 111/181,112/182.
(Physics 103/183, 104/184 recommended for prospective graduate students.)
Biology:
Botany (select 1 course) - 207, 351, 352
Zoology (select 1 course) - 312,313, 340, 342,456,457
(Q)urses offered in Botany and Zoology at Gulf Coast Research Laboratory may be substituted. Permission of the department head required.)
Ecology and Evolution (select 3 courses) - 306-7 (required), 315,416, 450, ESC 406
Cell and Physiology (select 1 course) - 304, 311,323, 428, 463
Recommended electives: Geog 221, Geol 123

Organismal Biology Concentration
Mathematics: 144, 145, 151/152 recommended for prospective graduate students,
Physics: 103/183, 104/184 or Geology 111/181,112/182; Physics 103, 104 recommended for prospective graduate students
Biology:
Botany and Zoology (select 4 courses) - 207, 312, 313, 340, 342, 351,352, 403,408,456,457
(A minimum of one botany and one zoology course must be taken. Courses offered
in Botany and Zoology at Gulf Coast Research Laboratory may be substituted.
Permission of the department head required.)
Ecology and Evolution (Select 2 courses) - 306-7,315,416,450, ESC 406
Cell and Physiology - 304 or 323
Recommended electives: Chemistry 466

Molecular Concentration
Mathematics 144, 145, 151/152 recommended for prospective graduate students.
Chemistry 466
Physics 103/183,104/184
Biology:
Botany (Select 1 course) - 207, 351, 352
Zoology (Select 1 course) - 312,313,330,340, 342,403,408,425,456,457
Ecology and Evolution - (Select I course) 306,315,416,450, ESC 406
Cell and Physiology - 311,326,412,420, and 428
Recommended electives: Chemistry 341, 446

BIOLOGY MINOR

The Biology Department offers a minor requiring 20 hours of biology including Biology 121, 122 and eight hours at the 300 level or above.
Minimum 2.0 average in the minor.

Medical Technology (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: ENGL 278 (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR option (b) World Civilization 1, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved courses, (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours; approved related course below will apply)
Statistics: Mathematics 210 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

121 Principles of Biology I (4)
An introduction to systematic ways in which the human mind comprehends the natural world; emphasis on studies of living systems, natural processes, and related phenomena including methods of the biologist, Darwin's evolutionary theory, role of organic molecules in biological systems, structure and function of the cell, cellular division, Mendelian inheritance, molecular genetics, physiology of digestion, respiration and fluid regulation, and animal behavior. Every semester. Lecture 3 hours, laboratory 2 hours.

122 Principles of Biology II (4)
An introduction to systematic ways in which the human mind comprehends the natural world; emphasis on studies of living systems, natural processes, and related phenomena including modern evolutionary theory, photosynthesis, cellular respiration, the survey of kingdoms, ecology, and nervous and hormone control on effectors. Every semester. Lecture 3 *hours, laboratory 2 hours.* ***Prerequisite: 121 with a grade ofC or better.***

191 Functional Human Anatomy (4)
The structure of the human body as seen in its various levels of organization: cellular, tissue, organ, and system. Every semester. *Lecture* 3 *hours,* laboratory 2 hours.

199r Special Projects (1-4)
On demand. ***Maximum credit 4 hours. Prerequisite: approval of instructor.***

207 Plant Morphology (4)
A study of the form, reproductive processes, and evolutionary relationships of the principal nonvascular and vascular plant groups. Spring semester. *Lecture* 3 ***hours, laboratory 2 hours. Prerequisite: Biology 122 or equivalent.***

208 Human Physiology (3)
Lecture studies of the physiological functions of the human body. Formerly 192. Every semester. *Corequisites: Biology 209;* Chemistry 121.

209 Laboratory Studies in Human Physiology (1)
Laboratory studies of the physiological functions of the human body. Formerly **193. Every semester.** ***Laboratory 2 hours. Pre- or corequisite: Biology 208.***

210 Microbiology and Health (4)
Microorganisms as related to disease, immunity, food preservation, and **sanitation. Every semester. Lecture 3** ***hours, laboratory 2 hours. Credit not allowed toward a biology or medical technology major.*** **Prerequisite:** ***Chemistry 121 or*** equivalent..

304 Plant Physiology (4)
Vascular plant structure and function emphasizing physiological activities, such as photosynthesis, water relations, mineral nutrition, and hormonal action. On demand. *Lecture* 3 hours, laboratory 2 hours. Prerequisites: Biology 122; *Chemistry* ***121, 122 or equivalent. Pre- or corequisite: Chemistry 351.***

306 Ecology (3)
The community concept with reference to structure, energy, cycles, and populations; the distribution of plants and animals with analyses of the factors involved. Spring, fall, or summer semester. *Prerequisite: Biology 122 or* ***equivalent, or approval of instructor.***

307 Ecology Laboratory (1)
Field application of ecological principles. Spring, fall, or summer semester. ***Laboratory 2 hours.*** **Field trips. Prerequisite: Biology 122 or** ***equivalent. Corequisite:*** 306.

311 Principles of Microbiology (4)
Morphology and physiology of microorganisms. Spring semester. *Lecture 2* ***hours, laboratory 4 hours. Credit not allowed in both Biology 210 and 311. Prerequisites: Biology 122, Chemistry 122 or equivalent.***

312 Invertebrate Zoology (4)
A survey of the invertebrate phyla up to the chordates with an emphasis on their evolution, morphology, and physiological adaptations. Formerly 225. Fall **semester alternate years.** ***Lecture*** **3** ***hours, laboratory 2 hours. Prerequisite:*** **Biology** 122 or equivalent.

313 Comparative Vertebrate Zoology (4)
The biology of the phylum Chordata, in particular the vertebrates, with an emphasis on their systematics, structural evolution, and functional morphology. Laboratory dissection of the shark, salamander, and cat. Fall or spring semester. ***Lecture*** **3** ***hours, laboratory 3 hours. Prerequisit: Biology 122 or*** **equivalent.**

315 Evolution (3)
Evidences of evolution; mechanism of natural selection; role of genetic factors in the diversity of populations; origin of races; species and higher categories; adaptation and behavior; recognition of evolutionary relationships; significance of evolution to the human species. Spring semester alternate years. Prerequisite: Biology *122 or* equivalent.

323 Introductory Animal Physiology (4)
A detailed analysis of selected aspects of animal physiology. For students whose primary interest is biological science. On demand. *Lecture 3 hours, laboratory 3* ***hours. Prerequisites: Biology 122*** **, Chemistry 122.**

325 Genetics (3)
Principles of classical (Mendelian), molecular, and population genetics including patterns of inheritance, genetic code and regulation of protein synthesis, recombinant DNA techniques, and evolution of the genome at the population and molecular levels. Fall semester. *Prerequisites:* Biology *122,* **Chemistry 1***22 or equivalent. Corequisite (Biology major only)* **:326.**

326 Genetics Laboratory (1)
Investigations in classical, molecular, and population genetics. Fall semester. ***Laboratory 2 hours.*** **Pre- or** ***corequisite: 325.***

330 Histology (4)
Structure of animal tissues and organ levels with emphasis on recognition, origin, and function of mammalian tissues. Spring semester alternate years. ***Lecture 2 hours, laboratory 4 hours. Prerequisites: Biology 122, Chemistry 122 or*** equivalent. Biology 191 or 3 J 3 recommended, Chemistry *352 recommended or* ***permission of the*** **instructor.**

340 Herpetology (4)
Morphology, ecology, taxonomy, and evolution of amphibians and reptiles. Spring, Fall, or Summer semester. *Lecture 3 hour, laboratory 2 hours.* Dissections **and** ***field trips. Prerequisites: 122 or equivalent.***

342 Entomology (4)
Principles of entomology including the morphology, development, taxonomy, ecology, and importance of insects. Fall semester alternate years. *Lecture 3* ***hours, laboratory 2 hours. Prerequisite:*** **Biology 1***22 or equivalent.*

351 Mycology (4)
An introduction to the Kingdom Fungi: Mushrooms, molds, and yeasts. Morphology, life histories, classification, genetics, physiology, development, ecology, medical and economic importance of fungi. *Lecture 3 hours, laboratory* ***2 hours. Prerequisite: Biology 122 or equivalent.***

352 Taxonomy of Vascular Plants (4)
Speciation; breeding systems; pollination systems; edible and poisonous plants; and origin of flowering plants. Laboratories emphasize identification of flowering plants, conifers, and ferns. Some field work required. Spring semester. ***Lecture 2 hours, laboratory 4 hours. Prerequisite: Biology 122 or equivalent.***

403 Developmental Vertebrate Embryology (4)
Current developmental processes and concepts drawn from selected invertebrate studies, but with major emphasis on experimentation in higher vertebrates. Laboratory explores vertebrate development through embryological slides, films and experimentation. Spring semester each year. ***Lecture 2 hours, laboratory 4 hours. Prerequisite: Biology 122; Biology 313 and 325 recommended. Pre-or corequisite: Chemistry 352. Permission of the instructor in some cases.***

408 Parasites of Man (4)
Life cycles, ecology, and physiology of the parasites of human beings including the diseases caused by these parasites. Formerly 308. On demand. *Lecture 2* ***hours, laboratory 4 hours. Prerequisite: Biology 122 or equivalent, or approval of instructor.***

412 Immunology (3)
Interactions between mammalian immune system cells and foreign substances. Emphasis on immunological disorders. Fall semester. *Prerequisite: 210 or 511.*

416 Biogeography (3)
A study of the distribution of plants and animals from a climatic and historical perspective. Fall semester. *Prerequisite: Biology 122.*

420 Molecular Genetics (3)
Genetic structure and regulation focusing on modern techniques and applications of genome manipulation. Spring semester. Prerequisite: *325 or 428.*

425 Developmental Biology (3)
Principles of development with emphasis on causal factors in plant and animal embryogenesis. On demand. Lecture 2 *hours, laboratory* 3 *hours. Prerequisites:* Biology 122, Chemistry 122 or equivalents, *and 8 additional semester hours of biology*. Pre- or *corequisite: Chemistry* 351.

428 Cellular Biology (4)
Morphological and chemical organization of the cell; cellular metabolism; metabolic energy relationships; nature of enzymes; fermentative and oxidative metabolism; photosynthesis. Fall and/or spring semester. *Lecture* 3 hours, laboratory 2 hours. Prerequisites: Biology *122, Chemistry 352, Mathematics 131 or* equivalent.

450 Systematics (3)
Principles of systematic biology including contemporary systematic philosophies, problems of species and speciation, taxonomic characters and interpretation, construction of evolutionary trees, higher categories and classification, nomenclature, taxonomic collections and procedures of identification. On demand. Prerequisites: Biology *122 or equivalent.*

456 Ichthyology (4)
The biology of fishes.fith an emphasis on the functional morphology, systematics, evolution, diversity, distribution, and ecology of fishes. Laboratory includes identification of the diversity of regional fish faunas, as well as laboratory dissections and field trips. Spring or fall semester. *Lecture 3 hours, laboratory 3 hours.* Prerequisites: Biology 313, *(or equivalent courses) or permission of the instructor.*

457 Mammalogy (4)
The biology of mammals, with an emphasis on diversity, distribution, systematics, structural evolution and paleontology, and functional morphology, Laboratory includes identification of regional diversity, as well as dissections and field trips. Spring semester alternate years. *Lecture 3 hours,* laboratory 3 *hours. Prerequisites: Biology 313 (or equivalent courses) or permission of the* instructor.

463 Endocrinology (3)
The hormones of animals with emphasis on those of mammals. Fall semester. Prerequisites: Biology 122, Chemistry *122.*

494r Biology Seminar (1)
Presentation of programs of current biological interest by students, faculty, and outside speakers. On demand. Prerequisite: *16* semester *hours biology*. Maximum credit: 2 hours.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. See "Departmental Honors," page 36.

496r Biological Techniques (1)
The study of various procedures dealing with such diverse topics as instrumentation, photomicrography, or special field techniques. Subject differs each time offered. On demand. Prerequisite: 15 *hours of biology and approval of* instructor.

497r Research (1-4)
Every semester. Prerequisite: approval *of instructor and head of the department.*

498r Individual Studies (1-4)
Every semester. Prerequisite: approval *of* instructor and *head of the department.*

499r Group Studies (1-4)
On demand.

ENVIRONMENTAL SCIENCE COURSES

110 Conservation of Biodiversity (3)
See Biology 110

150 Introduction to Environmental Problems I (4)
An introduction to systematic ways in which the human mind comprehends the natural world; emphasis on studies of living systems, natural processes, and related phenomena including basic ecological principles and environmental problems at local, national, and global levels. Topics to be covered include evolution, ecosystems, human overpopulation, biodiversity, energy sources, solid waste, and pollution of air, water, and soil. The laboratory integrates the scientific approach and provides hands-on experience in identification of abiotic and biotic factors affecting environmental quality. Every semester. *Lecture 3 hours,* laboratory 2 *hours.*

151 Introduction to Environmental Problems II (4)
An introduction to systematic ways in which the human mind comprehends the natural world; emphasis on studies of living systems, natural processes, and related phenomena including a focus on local environmental problems. Topics covered include a detailed study of the history of conservation, loss of biodiversity, conventional and organic argriculture, water pollution, global climate change, and environmental legislation. The laboratory is a combination od hands-on experiment and field activities. Every semester. Lecture 3 *hours, laboratory 2 hours. Prerequisite:* Environmental *Sciencel50 wi& a grade of Cor better.*

199r Special Projects (1-4)
On demand. Maximum credit *four hours.*

225 Oceanography (3)
Chemical and physical properties of sea water. Causes and patterns of oceanic circulation. Life zones in the oceans and factors delimiting them. Origin and physiography of ocean basins. Mineral and energy resources of the oceans. Spring semester. May be registered as Geology 225.

226 Oceanography Laboratory (1)
Laboratory exercises in oceanography. Spring semester. *Corequisite: 225.*

240 Introduction to Soil Resources (3)
Geologic origin, characteristics, and taxonomic groupings of soils, together with emphasis on survey methods and mapping procedures. Conservation and the environmental impact of agricultural and nonagricultural soil and land use. Spring semester alternate odd years. *Lecture 2 hours, laboratory 2 hours. Prerequisite:* Environmental Science!5*1 or equivalent with a grade ofC* or better.

250 World Resources (3)
Location, utilization, production, consumption, and significance of resources to society. Introduction to the vast, interlocking network of activities that produce and affect the world's use and consumption of resources. Spring semester alternate odd years. May be registered *as Geography 250. Lecture 3 hours. Prerequisite:* Environmental Science / 50 or equivalent with a grade *of Cor better.*

340 Environmental Survey Methods (4)
Field survey methods for compiling of botanical, zoological, geological, and archaeological data. To include mapping, sampling, and recording. Fall semester alternate even years. *Lecture 2 hours, laboratory 4 hours.* Prerequisite: Environmental *Science 151 or equivalent with a grade ofC or better.*

360 Air and Water Pollution Control (3)
The study of the origin, monitoring and control of air and water pollutants; to include sample taking, testing and observation of procedures used in community laboratories. Spring semester alternate odd years. *Lecture 2 hours, laboratory 2 hours. Prerequisites: one year of a natural science or* engineering *and fulfillment of the* mathematics *and statistics requirement for the respective concentration.*

406 Limnology and Reservoir Ecology (3) ,
Chemical, physical, and biological processes in lake and reservoir systems (nutrient budgets and cycling, hydrodynamics, phytoplankton/ zooplankton/ benthic dynamics, and physical similarities and differences in lakes and reservoirs). Fall semester alternate odd years. *Lecture 2 hours, laboratory 2 hours. Prerequisites: general chemistry, general* biology, *ecology, junior standing; general physics recommended.*

407 Environmental Conservation (3)
See Geography 407.

410 Environmental Law and Agencies (3)
Survey of national, state, and local environmental agencies, and provisions of environmental laws and ordinances at all levels of government. Emphasis on National Environmental Policy Act (NEPA). Analysis and composition and environmental impact statements. Spring semester alternate odd years. *Prerequisite: senior* standing.

430 Problems in Environmental Management (3)
Case history studies of problems in environmental management, with emphasis on the kinds of environmental precautions required in specific situations and on factors contributing to legal challenges to industrial and technological activities which have environmental consequences. On demand. Prerequisite: Environmental Sciencel51 *or equivalent withagrade ofC or* better.

455 Demographic Analysis (3)
Techniques of measuring and analyzing human population growth and distribution. Emphasis is placed on relationships of human population changes on environmental resources as well as effects of environment on morbidity and mortality. On demand. Prerequisite: Environmental ScienceJ51 or equivalent with *a grade* o/C or better.

460 General Toxicology (3)
Basic concepts of toxicology including an overview of toxic agents, the nature of toxic damage, and the methods used in quantitative toxicology. On demand. Lecture 3 *hours. Prerequisites:* Environmental *Science* 150; Biology 121 or *122; Chemistry 121 and 122. Recommended: Chemistry }5l.*

465 Remote Sensing and Imagery Analysis (3)
See Geography 465.

466 Geographic Information Systems (3)
See Geography 466.

475r Environmental Workshops for Teachers (1-4)
Workshops for science educators in environmentally related topics such as the conservation of endangered species, soil conservation, or water quality and water resource conservation. Designed to provide teachers with laboratory or field experiences and materials related to the environmental sciences. May be taken a maximum of three times.

480 Seminar on the Environment (1)
Seminar and discussion of topics of current environmental interest. Student presentation required. Spring semester. Prerequisite: senior or graduate standing.

481 Politics and the Environment (3)
A political analysis of the conflicting interests involved in implementing policies to protect the environment, develop alternative energy sources, and promote economic growth. On demand.

482 Technology and the Environment (3)
Explores the complex relationships between technology and the environment that have existed since the Paleolithic Period. Special attention to the study of tools for extracting materials and energy from the environment and to the effect of these tools upon the landscape. On demand. *Prerequisite: Environmental ScencelSl or* equivalent with a *grade of Cor better.*

483 Economics and the Environment (3)
An economic analysis of causes and effects of pollution; the role of economic policy in controlling pollution with special emphasis on water, air, and solid waste residuals; an evaluation of the alternative environmental controls. On demand. *Prerequisite:* Environmental *Sciencel5l or equivalent with a grade* o/C *or better*.

484 Values and the Environment (3)
An examination of the personal and social values at issue in the environmental problems of urban and nonurban regions. Attention to the emerging concern for an environmental ethic. Fall semester alternate odd years. Prerequisite: Environmental Science 150.

490 Environmental Science Senior Project (3)
A group project involving analysis and solution of an environmental problem; oral and written presentation of progress and final results required. Fall semester alternate even years. *Prerequisite: senior standing.*

491r Environmental Science Internship (Specific Agency, etc.) (1-4)
A cooperative arrangement between the Univerity and agencies, organizations, groups, and businesses involved with environmental problems. Designed to provide students with a learning, observing, and work experience through direct contact with individuals working on problems related to their field. Maximum credit: 9 hours. Every semester. Prerequisite: junior or senior standing *and* consent *of* environmental studies department *head.* •

495r Departmental Honors (2 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36 .The Chemistry Department strongly recommends that all *senior departmental honor projects be preceded* by a ten *week summer research project or by two semesters of departmental research* in Chemistry 497. *Between 5 and 10 clock hours of research* per *week are expected for 495 credit.* Maximum credit 4 *hours.*

496r Environmental Field Camp (1-6)
An interdisciplinary field experience representing two or more of the following disciplines: archaeology, botany, zoology, geology, and sociology. The field experience will include data collection in meaningful scientific studies, mapping, photography, and use of taxonomic keys. On demand. Prerequisite: introductory *courses in the* natural *and behavioral sciences, at least junior level standing, and approval of instructors.*

497r Research (1-4)
On demand. Prerequisites: *approval of* instructor *and head of the department.*

498r Individual Studies (1-4)
Every semester. *Prerequisites: approval of instructor and head of the department.*

499r Group Studies (1-4)
Every semester.

CONSORTIUM COURSES

The* University *of Tennessee at Chattanooga* maintains *a formal affiliation arrangement with the Gulf Coast Research Laboratory (GCRL)* in Ocean *Springs, Mississippi. Through this* arrangement, our students may *take field courses in marine science at* GCRL during *the summer. Credits for these courses are awarded through the University of Southern* Mississippi and tvill *be accepted as transfer credit at The University of Tennessee at Chattanooga. The following is a* list *of courses taught at* GCRL, tneir *level (undergraduate or graduate), and the semester hours credit.* Not all *course are offered each year.

Marine Science I: Oceanography (U) 5 hrs.
Marine Science II: Marine Biology (U) 5 hrs.
Coastal Vegetation (U/G) 3 hrs.
Marine Phycology (U/G) 4 hrs.
Salt Marsh Plant Ecology (U/G) 4 hrs.
Coastal Marine Geology (U/G) 3 hrs.
Marine Invertebrate Zoology (U/G) 6 hrs.
Marine Ichthyology (U/G) 6 hrs.
Marine Microbiology (U/G) 5 hrs.
Comparative Histology of Marine Organisms (U/G) 6 hrs.
Marine Fisheries Management (U/G) 4 hrs.
Fauna and Faunistic Ecology of Tidal Marshes (U/G) 4 hrs.
Early Life History of Marine Fishes (G) 4 hrs.
Marine Ecology (U/G) 5 hrs.
Parasites of Marine Animals (U/G) 6 hrs.
Marine Aquaculture (U/G) 6 hrs.
Coastal Ecology for Teachers (U/G) 4 hrs.
Special Problems in Marine Science (U/G) 1 to 6 hrs.
Special Topics in Marine Science (U/G) 1 to 6 hrs.

Students may obtain more information about the Gulf Coast Research Laboratory *and admission to the* summer program *from the* Biology/Environmental Science Head ***or by writing:* 0//ice *of Student Services, Gulf Coast Research Laboratory, Ocean* Springs, MS 39564-7000. *Telephone (601) 872-4201.***

Business Administration

See School of Business Administration.

Chemistry

Professor Kutz, *Head*

The chemistry curriculum provides programs leading to B.A. and B.S. degrees. The B.A. program emphasizes the liberal arts with specialization in chemistry and bffers the opportunity to develop a broad background in the sciences for students who are preparing for professional study in the health sciences. The B.S. program offers a greater concentration in chemistry, physics, and mathematics and is recommended for students with a career interest in chemistry. This program, which has been approved by the Committee on Professional Training of the American Chemical Society, is recommended for students who are planning for graduate study in chemistry. Both programs provide strong emphasis on theory and laboratory experience. The department also offers a minor in chemistry.

Preprofessional programs in dentistry, medical technology, medicine, cytotechnology, dental hygiene, pharmacy, and veterinary medicine are described in the Preprofessional Programs section of the catalog.

Chemistry (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: English 278 (3 hours)
Oral Communication: Completion of oral communication within major (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or Option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a labotatory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours; approved related course below will apply)
Statistics: Mathematics 210 or 307* (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity
Foreign language through second college year
Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major and related courses

Mathematics 151/152,161/162
Physics 103/183,104/184

37 hours chemistry including 121 and 123 (or 125), 122 and 124, 286, 333, 341,351 and 353,352 and 354,371,386,443,486r
2.0 average in all chemistry courses (excluding Chemistry 111,211 and 311)

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Chemistry (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: English 278 (3 hours)
Oral Communication: Completion of oral communication within major (3 hours)
Computer Literacy: Computer Science 110 (3 hours) (Students proficient in basic use of the computer are advised to take a programming course (118 or 150).
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours; approved related course below will apply)
Statistics: Mathematics 210 or 307* (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

One year of a foreign language.
Mathematics 151/152,161/162, 212
Physics 230 and 280 (or Physics 103, 183,104, 184), 231 and 281
Chemistry 121 and 123 (or 125), 122 and 124, 286, 333, 341, 351 and 353, 352 and 354,371,372, 386,434,443, 466,486r
One Chemistry lab course from 342, 453
One additional Chemistry research-related course from 342, 453,495r, 496r, 497r

2.0 average in all chemistry courses (excluding Chemistry 111, 211,311)

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

CHEMISTRY MINOR

Chemistry 121 and 123 (or 125), 122 and 124,341, 351,352 and 354, and one course selected from 342,371,443, or 466.
Minimum 2.0 average in the minor.

***If certified as a statistics course.**

CHEMISTRY COURSES

111 Chemistry and the Environment (3)
Examines chemical concepts and methods of investigation with applications to the environment. Spring semester odd years. Credit may not *apply toward a chemistry* major.

121 General Chemistry I (3)
Surveys chemical principles involving structure, properties, reactions, and organic chemistry. Every semester. *Lecture* 3 *hours Prerequisite: Math Placement level 20 or Math* 106 or *equivalent.* Chemistry 125 *may be substituted for* Chemistry 121 *and 123* in meeting all requirements. *Corequisite:* Chemistry *123.*

122 General Chemistry II (3)
Examines chemical concepts in inorganic, analytical, and physical chemistry. Every semester. *Lecture 3 hours. Prerequisite:* 121 or 125 with *a minimum grade of* C; Math 131 *or equivalent. Corequisite: Chemistry 124.*

123 General Chemistry I Laboratory (1)
Laboratory experiments to support and enhance the topics covered in Chemistry 121. Every semester. Laboratory 3 *hours. Corequisite: Chemistry 121.*

124 General Chemistry II Laboratory (1)
Laboratory experiments to support and enhance the topics covered in Chemistry 122. Every semester. Laboratory 3 *hours. Prerequisite Chemistry 123; Corequisite: Chemistry 122*

125 Honors General Chemistry (4)
Provides an advanced survey of chemical principles involving structure, properties, reactions, and organic chemistry. Laboratory work emphasizes advanced experimental procedures. Fall semester. *Lecture 3 hours, laboratory 3 hours. Prerequisite: approval of instructor. Chemistry 125 may be* substituted *for* Chemistry 121 m meeting all requirements.

168 Survey of Organic and Biochemistry (4)
A selection of chemistry principles relevant to health fields, including a survey of organic and biochemistry, with laboratory experiments to demonstrate these principles. Spring semester. *Lecture 3 hours, laboratory 2 hours. Prerequisite: Chemistry 121 and 123 or 125* with *minimum grade of C. Credit* not *allowed after* Chemistry 466. Credit may not be applied toward a chemistry *major.*

199r Special Projects (1-4)
Focuses on individual or group projects. On demand. Maximum credit *4 hours.*

211 Forensic Chemistry (3)
Presents the application of chemical analysis to criminalistics including studies of physical evidence, microscopy, drug analysis, toxicology, arson investigation, serology.firearms, and documents. Fall semester odd years. Credit may not be applied toward a chemistry major.

286 Scientific Communication (2)
An introduction to the techniques of oral presentations including the use of current technology. Every semester. *Classroom 2 hours. Prerequisite:* Chemistry *122.*

311 Technologies in America's Future (3)
Examines the role of technological development on the society of the future. Particular emphasis will be placed on methods of technological forecasting, the positive and negative impacts of key technological developments on meeting societal and personal needs, and those areas of technology that are most likely to affect change in our society. Spring semester odd years. Credit may not be applied toward a *chemistry major.*

333 Inorganic Chemistry (3)
Concepts and modeb in inorganic chemistry with emphasis on atomic structure and bonding, molecular orbital theory, material science, and descriptive inorganic chemistry including biological and environmental applications. Fall semester. *Lecture 3 hours. Prerequisites: Chemistry* 352 with *a* minimum grade *of C; Mathematics 1611162. Co- or prerequisite:* Chemistry 341 and Physics 104/184 or 231/281.

341 Quantitative Analysis (4)
Examines the theory and practice of volumetric, electrochemical, and spectrophotometric analysis applied to the study of stoichiometry and equilibrium. Fall semester. *Lecture 3 hours, laboratory 3 hours. Prerequisite: 1221 124.*

342 Analytical Methods (4)
Focuses on advanced theory and practice of analytical chemistry including instrumental approaches to seperation and analysis. Spring semester, even years. Lecture 3 *hours, laboratory 3 hours. Prerequisite: 341, 351.*

351 Organic Chemistry I (3)
Studies compounds if carbon with emphasis on structure, reactivity, mechanisms, and synthesis of organic molecules. Fall semester. Lecture 3 hours.

353 Organic Chemistry I Laboratory (1)
Laboratory experiments to support and enhance the topics covered in Chemistry 351. Fall semester. Laboratory 3 *hours. Prerequisite:* Chemistry *124; Corequisite: Chemistry 351.*

352 Organic Chemistry II (3)
Continuation of Chemistry 351. Emphasis on functional group manipulation and synthesis. Spectroscopic methods of analysis with emphasis on structure elucidation included. Spring semester. *Lecture 3 hours. Prerequisite: Chemistry 351 with minimum grade ofC.* Corequisite.-Chemistry 354.

354 Organic Chemistry II Laboratory (1)
Laboratory experiments to support and enhance topics covered in Chemistry 352. Spring semester. Laboratory 3 *hours. Prerequisite:* Chemistry *353; Corequisite: Chemistry 352.*

367 Current Topics in Biochemistry (3)
Studies the biosynthesis of biochemically active molecules, including amino acids, immunoglobins, and hormones, with special emphasis on current research in these areas. Spring semester odd years. Prerequisite: 352/354

371 Physical Chemistry I (4)
Examines thermodynamics, kinetics, and quantum mechanics with applications to physical and chemical properties of matter. Fall semester. Lecture 3 *hours, laboratory* 3 *hours. Prerequisites:* Chemistry *341,* 351/353; Mathematics 161/162. Co- or Prerequisite: Physics 104/184 or *2311281.*

372 Physical Chemistry II (4)
Continuation of 371 with primary emphasis on kinetics, quantum mechanics, and spectroscopy. Spring semester. Lecture 3 *hours, laboratory 3 hours. Prerequisite:* Chemistry *371.*

386 Chemical Literature (1)
Surveys the primary, secondary, and tertiary sources of chemical information with weekly individual assignments in the use of these sources. Fall semester. Prerequisite: 16 *semester hours of* chemistry.

390r Cooperative Work Experience (1)
Gx>perative chemistry work experience is part of the Cooperative Education Program. Students participate in off-campus laboratory work in industry or government. Written and oral reports required. Prerequisite: Selection by Cooperative Education *Office. Maximum credit 4 hours. Credit may not be applied towards a chemistry major; but forB.A. degree will count against the 42-hour limit* permitted in any one department. Course *graded on a* satis/actory/no *credit basis.*

426 Chemistry in Industry (2)
Surveys the chemical industry including economic aspects, activities of chemists, and case studies in the solving of industrial, problems. Spring semester odd years. Prerequisite: *24 semester hours of chemistry.*

434 Advanced Inorganic Chemistry (4)
Advanced theories of bonding and structure in inorganic chemistry with emphasis on ligand field theory, bioinorganic chemistry, and organometallic chemistry. Spring semester. *Lecture 3 hours, Laboratory* 3 hours. Prerequisites: Chemistry *333, 371* with grades o/C or better; Mathematics *212; Physics 231/281.*

443 Instrumental Analysis (4)
Examines the theory and use of infrared and ultraviolet spectroscopy, nuclear magnetic resonance, atomic absorption, gas chromatography, thermal analysis, electrochemical analysis, and other instrumental methods of characterizing chemical structure. Spring semester. Lecture 3 *hours, laboratory 3 hours. Prerequisites: 341 and 3521354 with* minimum grades o/C; Physics *1041184 or 2311 281.*

453 Advanced Organic Chemistry (4)
Studies advanced concepts of organic chemistry upon which modern organic chemistry is developed. Kinetics, thermodynamics, multi-step synthesis, molecular orbital concepts and orbital symmetry, and molecular structure determination by modern physical methods are emphasized. Fall semester even years. Lecture 3 *hours, laboratory 3 hours. Prerequisite:* Chemistry *352 with* minimum grade o/C, Chemistry *354.*

466 Biochemistry (3)
Surveys the chemical aspects of protein and enzyme function, bioenergetics, metabolism, photosynthesis, nucleic acid function, and protein biosynthesis. Fall semester. Prerequisite: *352 with a grade of* C or better.

475 Polymer Chemistry (2)
Focuses on the chemistry of synthetic polymers including mechanisms of polymerization and the relation of properties to structure. Spring semester even years. Prerequisites: *352 and 371 or* equivalent knowledge.

486r Seminar (1)
This participation seminar is based on student papers, invited speakers, and other activities. Every semester. Prerequisite: *24 semester hours of chemistry. Maximum credit 2 hours.*

495r **Departmental Honors** (2 **hours per term, 4 hours** for the two terms)
The Chemistry Department strongly recommends that all senior departmental honors projects be preceded by a ten-week summer research project or by two semesters of departmental research in Chemistry 497. Between 5 and 10 clock hours of research per week are expected for 495r credit. Every semester. Prerequisite: approval *of Chemistry Department. See "Departmental Honors," page* 36.

496r **Industrial Research (2)**
Focuses on group participation in a research project sponsored jointly by the Chemistry Department and a local industry. Written report required. On demand. *Laboratory 4 hours. Prerequisite: 20 semester hours of chemistry.*

497r Research (2)
Involves laboratory or library research under staff supervision. Seminar presentation of results. Students should confer with the instructor prior to registration. Every semester. Laboratory *4 hours.* Maximum credit *4 hours.*

498r Individual Studies (1-4)
Involves individual or group projects. Credit may be earned through University, governmental, or industrial laboratory experience approved by the department. Every semester. *Maximum credit 4 hours.*

499r Group Studies (1-4)
Examines a special topic of a selected area of chemistry as specified in the schedule of classes. Students should confer with the instructor prior to registration. On demand.

Classical Civilization

See Foreign Languages and Literatures.

Communication

Professor Rushing, *Head*

The Department of Communication is fully accredited by the Accreditation Council for Education in Journalism and Mass Communication (ACEJMC). The Department of Communication offers a Bachelor of Arts degree requiring a combination of broad liberal learning and specialized study in communication. In addition to meeting the general education requirements, the communication major must complete a minor in one department in the College of Arts & Sciences. Besides required courses in communication, the major can choose from a number of departmental electives available in advertising, broadcasting, journalism, and public relations courses. Major must also complete an internship of no less than 150 hours of on-the-job training.

Communication (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in Rhetoric and Composition (6 hours)
Intensive Writing: Communication 231 (3 hours)
Oral Communication: One approved course (3 hours)
Computer Literacy: One approved course (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours; approved related course below will apply)
Natural Sciences: Two approved courses natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science Health and Leisure Studies 021 plus one additional semester of exercise science activity

Foreign Language through second college year

Related Study

One minor approved by the department. Courses in the minor approved for general education may be used to satisfy general education requirements

Major

Completion of 33 hours of communication courses including 101, 230, 231, 320,420,451, and 485 or 480, and other communication courses as electives for the total of 33 hours.
Communication majors must take a minimum of 90 semester hours in courses outside the major, with no fewer than 65 semester hours from the liberal arts and sciences.
2.0 average in communication courses
Minimum of 30 hours of 300 and 400 level courses.
Electives to complete 128 hours.

COMMUNICATION MINOR

A total of 18 hours, including Communication 101. Nine hours must be at the 300 level or above.
Minimum 2.0 average in the minor.

COMMUNICATION COURSES

101 Introduction to Mass Communication (3)
Structure and functions of the mass communication media and their adjuncts; creation, distribution, and exhibition of mass media content; legal and ethical considerations. Every semester. *Lecture 3 hours.*

199r Special Projects (1-3)
Individual or group studies. Every semester. *Laboratory 1 to* 3 hours

230 Writing 1 (3)
Intensive practice in writing for mass media. Style, usage, format and basic computer, interview, and research skills Every semester. *Prerequisites: English* ***121, typing proficiency of 30 wpm, or approval of the*** **instructor. Laboratory** ***4 hours***

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231 **Writing II (3)**
Researching, structuring, writing, and evaluating news stories, and practice in writing for public relations and advertising. Theoretical perspectives of news and other media information, comparisons among the media. Every semester. **Prerequisites: English** ***122 and*** **Communication** ***230, typing proficiency of 36 wpm, or approval of the instructor. Laboratory 4 hours.***

271 Introduction to Public Relations (3)
Fundamentals of establishing and maintaining effective relations with organizational publics. Introduction to publicity methods and managing the public relations function. Case study approach. On demand. Prerequisites: 101, ***230, or approval of instructor.*** **Lecture 3** ***hours.***

320 **Mass Communication Perspectives (3)**
History and development of mass media and mass media issues in American society. Cultural, technological, economic and societal consequences of the media. Every semester. Prerequisite: 101. Lecture 3 *hours.*

324 Race, Gender and the Media (3)
Examines the roles of ethnic minorities and women as members and consumers of the media. Spring semester. Prerequisite: junior standing or permission *of* ***instructor. Lecture 3 hours.***

333 **Persuasive Writing (3)**
Preparation of persuasive copy for print and electronic media. Creative and conceptual aspects emphasized. Fall semester. *Prerequisite: 231. Laboratory* ***4 hours***

335 **Publication Editing and** Design (3)
Elements of publication design, with special attention to typography, graphics, and layout. Every semester. Prerequisite: *230. Laboratory 4 hours.*

340 Audio Production and Presentation (3)
Producing and presenting content in radio and nonbroadcast audio media, using both studio and portable facilities. Studio, control room, and field production procedures, recording and editing, music and sound effects. Every semester. Lecture 1 hour, laboratory 3 *hours.*

345 Video I (3)
Writing and producing news, commercials, and public service and promotional **announcements. Every semester.** ***Prerequisite: 231. Lecture 2 hours, laboratory 3 hours*** **.**

361 **Advanced Reporting** (3)
Reporting and writing news from city and county sources, with emphasis on researching public documents. Explorations and discussions of news and its relationship to society. On demand. Prerequisite: *231. Laboratory 4 hours.*

363 Feature Writing (3)
Nonfiction writing for newspapers, magazines and specialized publications. **Every semester. Prerequisite:** ***231 or approval of the instructor. Laboratory 4 hours*** **.**

400r Special Topics (3)
Specialized study of mass media designed to meet interests of students and **faculty. On demand. Approval** ***of instructor or head of the department.***

410 Public Communication and Environmental Issues (3)
Seminar concerning environmental policy, information, and education, environmental reporting, and environmental public relations. Also discusses risk communication and the multiracial environmental justice movement. On **demand.** ***Prerequisite: Junior or senior*** **standing, Category D, approval** ***of instructor*** **.**

420 Senior Seminar (3)
Current issues in mass media and completion of a research project. Every semester. Prerequisite: *320.*

445 Video II (3)
Television field production: scripting, shooting and editing. Spring semester. **Prerequisite:** ***345. Lecture 2 hours, laboratory 3 hours.***

451 Mass Communication Law and Ethics (3)
United States legal system, elements of constitutional law, the law of mass communication. Personal and professional ethics as they apply to communications disciplines. Fall semester. Lecture 3 hours.

461 Newspaper and Newsletter Editing and Design (3)
Principles and practices of editing and evaluating news copy, writing headlines and captions, newspaper and newsletter layout and design practices, electronic editing, and newspaper and newsletter production processes. Spring semester. Prerequisite: 231. Laboratory *4 hours.*

465 The Advertising Campaign (3)
Principles of campaign research, planning, implementation, and presentation applied to an account. Spring semester. Prerequisite: *333. Lecture 1 hour,* ***laboratory 3 hours.***

470 The Public Relations Campaign (3)
Principles of campaign research, planning, implementation, and evaluation, and their application. Spring semester. Prerequisite: 333. Lecture 1 hour, ***laboratory 3 hours.***

480 Directed Project (3)
Guided project designed to demonstrate proficiency at professional level in a specific area. Every semester. Prerequisites: senior standing *and approval of the* ***department*** **in** ***the semester preceding*** **enrollment.**

485 Individual Internship (3)
Working experience in a professional situation. Every semester. *Prerequisites: senior* standing and approval *of the department* in the semester preceding enrollment.

495r Departmental Honors (1-3 hours per, 4 hours for the two)
On *demand.* See "Departmental Honors," page 36.

497r Research (1-3 hours)
Every semester. Prerequisite: approval *of the department.*

498r Individual Studies (1-3 hours)
Every semester. Prerequisite: approval *of the* department.

499r Group Studies (1-3 hours)
On demand.

Computer Science

See College *of Engineering and Computer Science.*

Criminal Justice

See *College of Health and Human Services.*

Education

See College of Education and Applied Professional Studies.

Engineering

See College *of Engineering and Computer Science*

Economics

Professor Hutchinson, *Head*

The economics curriculum is designed to prepare students for a successful career in different sectors of the economy. This is accomplished by offering a B.A. as well as B.S. in economics. The B.A. degree provides flexibility in course offerings and requires study of a foreign language. The B.S. degree, on the other hand, stresses mathematics and analysis.

Economics (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in Rhetoric and Composition (6 hours)
Intensive Writing: ENGL 277 or ENGL 279 (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours) *and* Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization 1, II, III (9 hours)
Humanities and Fine Arts: 2 approved courses with at least 3 hours in fine arts (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Behavioral & Social Sciences: 2 approved behavioral or social science courses in two different disciplines (6 hours)
Mathematics: 1 approved mathematics course (3 hours)
Statistics: 1 approved statistics course (3 hours; Approved related course below will apply)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Foreign language through second college year

Completion of a minor within die College of Arts and Science with a minimum of 2.0 grade point average

Major and related courses

Economics 201 and 202
15 hours in economics including 101, 102, 324, 325, and 453
15 hours from the following: Economics 301, 306,317, 404,415 or416 (not both), 417,425,426,429,430,444,450,452,455,460,465,470,495r, 497r,498r,499r
2.0 average in all economics courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours
An economics major may complete a maximum of 33 credit hours in the College of Business Administration. This limit does not apply to students seeking the double major or degree in business and economics.

Economics (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in Rhetoric and Composition (6 hours)
Intensive Writing: ENGL 277 or ENGL 279 (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) *and* Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: 2 approved courses with at least 3 hours in the fine arts (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Behavioral & Social Sciences: 2 approved behavioral or social science courses in two different disciplines (6 hours)
Mathematics: 1 approved mathematics course (3 hours; approved related course below Will apply)
Statistics: 1 approved statistics course (3 hours; approved related course below will apply)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Mathematics 131 and 136
Economics 201 and 202
15 hours core courses including Economics 101,102,324,325,453
18 hours from the following: Economics 301,306,317,404,415 or 416 (not both), 417,425,426,429,430,444,450,452,455,460,465,470,495r, 497r, 498r, 499r; Accounting 201; Finance 302 (BACC 202 is prerequisite) Other courses may be substituted with approval of department.
2.0 average in all economics courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours
An economics major may complete a maximum of 33 credit hours in the School of Business Administration. This limit does not apply to students seeking the double major or degree in business and economics.

ECONOMICS MINOR

A student may obtain a minor in economics by taking Economics 101 and 102 plus 12 additional hours of 300 or 400-level economics courses (minimum of 18 hours).
Minimum 2.0 average in the minor.

ECONOMICS COURSES

101 Principles of Economics: Macroeconomics (3)
A study of national income and its determination, money and banking, economic fluctuations, fiscal and monetary policy, economic growth, and international economics. An introduction to the study of human behavior and the human condition in the context of macroeconomic forces. Every semester. Economics lOl and Economics 102 can be taken in either order.

102 Principles of Economics: Microeconomics (3)
A study of the market system, the price system, forms of business organization, government and business, labor and distribution. An introduction to the study of human behavior and the human condition in the context of microeconomic forces. Every semester. Economics 101 and Economics 102 can be taken in either order.

199r Special Projects (1-3)
Individual and group projects. On demand. *Maximum credit* 3 hours.

201 Statistics for Economics I (3)
Basic concepts of data collection and presentation, descriptive and inferential statistics, probability, sampling distributions, estimation and hypothesis testing with emphasis of economic data and problems. On demand. Prerequisites: 10/, *102 and Math 135. No credit allowed after* BMGT *211, Math 210 or equivalent.*

202 Statistics for Economics II (3)
Statistical inference with an emphasis on regression, a primary tool in economic analysis. Computer applications. *Prerequisites: 201. No credit allowed after* BMGT 212 or *equivalent.*

301 Money and Banking (3)
Development and analysis of the American monetary system and commercial and central banking; special attention to analysis and evaluation of monetary policies. Every semester. Prerequisites: *101, 102.*

306 Public Finance (3)
Public expenditures and revenues, principles of taxation, public debt, and fiscal policy. On demand. *Prerequisites: 101, 102.*

317 Labor Economics and the Labor Process (3)
Theories of labor markets, the labor process, and income distribution. Economic aspects of issues such as discrimination, education and unemployment. On demand. Prerequisites: 101,102.

324 Intermediate Microeconomic Theory (3)
Survey of developments in economic analysis; price determination, including considerable study of demand and cost theory; imperfect competition. On demand. Prerequisites: 101, *102.*

325 Intermediate Macroeconomic Theory (3)
Introduction to contemporary theory of income and employment; emphasis on the essential principles and concepts used in the determination of the level of income and employment, the rate of economic growth, and the general price level. Every semester. *Prerequisites:* 101, *102.*

404 International Economics (3)
The classical and modern theories of international trade; international trade accounting; exchange rates; tariffs and other restrictions on trade; recently created agencies and programs to promote international economic relationships; the influence of international economic relationships on world politics. On demand. Prerequisites: 101, 102, or equivalent.

415,416 Economic History of the United States (3, 3)
See History 415,416.

417 Women in the Economy (3)
The role of women in the U.S. economy. An economic analysis of women's labor force participation, discrimination against women in the labor market, women's paid and unpaid work, the child care industry, and female poverty. On demand. Prerequisites: *101, 102 or consent of instructor.*

425 Industrial Organization (3)
The structure of industry, business conduct, and economic performance; analysis of antitrust law and government regulation. Every semester. Prerequisites: 101, 102.

426 Comparative Economic Systems (3)
Theoretical and empirical examination of various economic systems with emphasis on current capitalist and socialist economies. Objectives and outcomes of market and planned economies are compared. On demand. Prerequisites: 101, 102.

429 Managerial Economics (3)
The solution of business problems by use of economic theory, accounting, marketing methods, financial techniques, etc. On demand. Prerequisites: 101, *102;* Management *212,* and Mathematics 136.

430 Environmmental Economics (3)
An economic study of environmental issues and alternative solutions to them. Topics include measurement of cost and benefits, property rights and externalities, pollution control, and past, present, and future environmental policy and regulations. On demand. Prerequisites: 101, 102.

444 Economics of Underdeveloped Areas (3)
Factors underlying economic progress of nations and geographic areas; analysis of resources, manufacturing and agricultural productivity, saving and investment, trade, monetary and banking system, and fiscal system. On demand. Prerequisites: 101, 102, or graduate standing.

450 Marxian Political Economy (3)
An introduction to Marxian thought in general and Marxian economic theory in particular. Marxian analysis of theories of value and distribution, including modern radical economics. On demand. Prerequisites: 101, 102.

452 European Economic History (3)
The economic history of Europe from the break-up of the ancient world through the 19th century. Exploration of the relationship between economic growth and social development. On demand. Prerequisites: Junior *standing.*

453 History of Economic Thought (3)
Development of theories of value and distribution, macroeconomics, money and banking, international trade, and business cycles; works of Smith, Malthus, Ricardo, Marx, Jevons, Marshall, Wicksell, Knight, Schumpeter, and Keynes. On demand. Prerequisites: *101, 102.*

455 Urban Economics (3)
A study of the metropolitan economy with a problem orientation in areas of intra-metropolitan industry location, urban residential location and travel behavior, the urban ghetto, housing markets, urban transportation, and environmental quality. On demand. Prerequisites: 101, *102.*

460 Introduction to Econometrics (3)
The study of issues in economics and statistical tests of economic models through regression analysis. Also recommended for non-economics majors with an interest in economics and mathematics. On demand. Prerequisites: 101, 102; Mathematics 136 or 150; *and* Management *212 or* Mathematics *407.*

465 Economics of Regulated Industries (3)
Presentation and analysts of economic aspects of regulation of public service industries. On demand. Prerequisites: 101, 102.

470 Seminar in Current Economic Topics (3)
The application of economic techniques and analytical methods to not less than five current topics, which may vary from semester to semester, selected by the instructor. Designed for senior economics majors. On demand. Prerequisites: 6 *hours of economics courses at the 300 level or above.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-3)
On demand.

498r Individual Studies (1 -3)
On demand.

499r Group Studies (1-3)
On demand.

English

Professor Prevost, *Acting Head*

In addition to providing a variety of courses for general education and for electives, the English Department offers programs leading to the B.A. (in English and American language and literature) and to the B.S. (in secondary English). Beyond the traditional freshman program in rhetoric and composition, most of the offerings in the English curriculum are based on the study of literature, such as genre studies, courses in major authors, and surveys of literary periods. There are also several upper level courses which stress the development of skills in various forms of writing. It is in fostering and advancing the humanistic traditions, however, that the English Department makes its principal contribution to liberal education.

English and American Language and Literature (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)

Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Foreign language through second college year

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major and related courses

39 hours English in addition to general education requirements including: English 203; 207; 211 and 212; 213 and 214; 361; at least one course in the novel at the 300 or 400 level
At least 9 of the remaining hours must be in 300- and 400- level courses, with one course in English literature before 1800
12 hours additional in supporting courses beyond the General Education requirements: these courses in conjunction with the academic adviser.
2.0 average in all English courses (excluding general education Category A courses)

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours
For teacher certification see School *of Education* section.

Writing Concentration
The Department of English permits a concentration in writing within the English major. To take a concentration in writing a student must complete the major in English including at least 12 hours from the following courses, no more than two courses on the 200 level and at least one at the 400 level: English 270, 277,278, 279,300,370,375r, 376r, 410,471r, 473,479r, 495r when topic is appropriate, Communication 230,363.

ENGLISH MINORS

English: Literature
21 hours including 133, 203,207, one (1) from English 204,211,212, 213,214 and three (3) from 300-400 level literature courses with one (1) course before 1800, and one (1) course after 1800 in American or English literature, and one (1) elective 300-400 level in literature or writing to be chosen in conjunction with an academic advisor.

English: Writing
21 hours including 15 hours in writing courses and 6 hours elective at the 300 level or above - all to be chosen in conjunction with an academic advisor.
The following are the professional writing courses: 277 or 278, 279,300,410, 471r
The following are the creative writing (fiction or poetry) courses: 270,375r, 376r,471r.
The 15 hours may be achieved in any combination of professional and creative courses. The six (6) hours may be in writing or literature courses.
At least 9 hours must be at the 300 level or above.

ENGLISH COURSES

105 Developmental Writing I (3 hours of institutional credit)
Review of correct language forms. Requires extensive practice in the writing of sentences and paragraphs as well as in the practice of editing for proper punctuation and accurate grammatical structure. Every semester. Credit not applicable toward any degree. *Prerequisite: Placement required.*

106 Developmental Writing II (3 hours of institutional credit)
Emphasis on developing ideas and organizing them into coherent paragraphs while using correct language forms. Requires extensive practice in writing paragraphs and short essays. Every semester. Credit not applicable toward any degree. *Prerequisite: Grade* o/C or better *in* English 105 or placement.

113 Western Humanities I (3)
An historical approach to the pivotal ideas, systems of thought, and creations of the Western world from antiquity to approximately 1600 C.E. Emphasis on matters of literary structure, style, and content. Corequisice: English *121*

115 Western Humanities II (3)
An historical approach to the pivotal ideas, systems of thought, and creations of the Western world from approximately 1600 C.E. to the present. Emphasis on matters of literary structure, style, and content. *Prerequisite:* English 121; *Carequisite: English 122.*

121 Rhetoric and Composition (3)
The principles and practice of effective reading and writing. Frequent themes, exercises, selected readings. Attention to individual problems of grammar and usage. Formerly English 101. Every semester. Prerequisite: Grade o/C or *better in English 1*06 or *placement An rare* instances *exemption from English 121 may be recommended* by the department.

122 Rhetoric and Composition (3)
Review of competencies stressed in English 121 with emphasis on the extended essay; use of research matter in writing; attention to diction, figurative and symbolic language, relationship of style and meaning. Formerly English 102. Every semester. Prerequisite: English 121 with grade o/C or better or placement.

131 Values in 20th Century American Fiction (3)
A study of contemporary man's search for values as reflected in selected twentieth century American novels and short stories from World War 1 to the present. Formerly English 111. Spring semester alternate years.

133 Introduction to Literature (3)
Readings from poetry, fiction, and drama to demonstrate how the writer selects from ideas, experience, and language and combines these elements to speak of and to the human condition. Formerly English 103. Fall and spring semester.

161 English as a Foreign Language I (3)
The first of two sequential courses in ESL, this course offers non-native speakers intensive practice in reading, writing and the more difficult points of English usage. Required during the first term of residence'of all students who are non-native speakers of English and who are placed in the course on the basis of the English department's writing proficiency examination that must be completed before registration by all non-native speakers of English. Fall semester.

162 English as a Foreign Language II (3)
The second of two sequential courses in ESL, this course offers non-native speakers intensive practice in writing and in the more difficult points of English usage and style. Required during the first term of residence of all students who are non-native speakers of English and who are placed in the course on the basis of the English department's writing proficiency examination that must be completed before registration by all non-native speakers of English. Fall and Spring. Prerequisite: *Placement lest or completion of English 161.*

199r Special Projects (1-4)
Individual or group projects. Every semester. *Maximum credit 4 hours for* B.A. in English or B.S., Secondary Education in English. By permission of department *head.*

203 Literature of the Humanities (3)
Selections from the literature of the Western tradition, from Homer to the end of the Renaissance; read in English and studied in the context of the other humanities and the fine arts. Fall and spring semester.

204 World Literature from the Renaissance (3)
Selections from English literature of the Renaissance and later periods and from European and American writers. Spring semester alternate years.

207 Shakespeare: an Introduction (3)
Fall and spring semester.

211 Survey of English Literature to 1800 (3)
Fall and spring semester.

212 Survey of English Literature since 1800 (3)
Fall and spring semester.

213 American Literature to 1855 (3)
Representative works from the Colonial and Romantic periods. Fall semester.

214 American Literature from 1855 (3)
Representative works from the late 19th and 20th centuries. Fall and spring semester.

219 African-American Literature (3)
Readings will be largely fiction with supportive critical works and some poetry and drama to examine the development of African-American literature form the 1850's to the present. Figures may include Harper, Chestnutt, Washington, DuBois, Hurston, Wright, Ellison, Brooks, Baldwin, Walker, and Morrison. Spring Semester. May be registered as Humanities 219.

228 Children's Literature (3)
A survey and evaluation of some of the best literature for children, with special attention to literature for preschool and elementary school years. Fall and spring semester. Prerequisite: one lower *level course in written* communication in English.

229 Literature for the Adolescent (3)
A survey and evaluation of literature whose primary audience is the adolescent, with special attention to the usefulness of such literature in secondary education. Spring semester. *Prerequisite: one lower level course* in *written* communication in English.

230r Popular Fiction (3)
Science fiction or detective fiction or other type of popular fiction, one or another of which will be studied for its literary merit: the type of popular fiction to be studied in any particular section will be specified in the schedule of classes. On demand.

233 The Uses of Tradition: India and Japan (3)
A comparison of two mythic and traditional cultures confronting modernism, as reflected in expository reading, documentary films, and the arts, including fiction, poetry, music, and dramatic film. On demand.

257 The Romantic Experience (3)
An interdisciplinary survey of "Romanticism" in European civilization, ca. 1789 to 1918, addressing and analyzing some of the main historical, philosophical, and aesthetic forces involved in this broad cultural experience. On demand. May be registered as Humanities 257.

270 Creative Writing (3)
Instruction and practice in writing imaginative literature for magazines and specialized publications. Fall and spring semester.

277 Professional Writing (3)
An introduction to the theory and practice of the basic forms of writing used in any profession. Emphasis on the processes of communication in addition to their various forms; practice in the reading and writing of memoranda, prospectuses, digests, charts, extended reports, etc. Fall and spring semester. Prerequisite: English 122

278 Scientific Writing (3)
An introduction to the theory and practice of science writing. Emphasis on the problems of communicating to specialized audiences and the problems of translating specialized language for general audiences; practice in the translation and writing of technical reports and supporting materials, proposals, articles, reports, etc.; practice in the conversion of technical information and formulas into everyday language. Spring semester. *Prerequisite:* English J 22

279 Writing for the Human and Social Sciences (3)
An introduction to the theory and practice of the modes of discourse used in human and social sciences. Emphasis on the processes of thinking involved in researching, reading, and communicating in these fields; extended research, and original essays with opportunities for the student to focus on his or her academic field. Spring semester alternate years. Prerequisite: English 122

300 Intermediate Rhetoric and Composition (3)
An introduction to the theory and practice of the basic kinds and combinations of discourse and their aims; extended essays and other writing assignments in these kinds of discourse. Fall and spring semester. Prerequisite: English 122

301 The Literature of England to 1300 (3)
Representative works in translation. On demand.

302 The Literature of England, 1300-1500 (3)
Representative works including Chaucer. On demand,

303 Early Renaissance Literature to 1600 (3)
Representative works from Tudor and Elizabethan periods. Fall semester alternate years.

304 Milton and the Seventeenth Century (3)
Representative works from the Jacobean and late Renaissance periods. Spring alternate years.

305 Age of Dryden, Pope, and Swift (3)
Representative works from the early 18th century. On demand.

306 Age of Johnson (3)
Representative works from the mid and late 18th century. On demand.

317 English Romantic Period (3)
Representative works from the period 1789-1837. On demand

318 Victorian Literature (3)
Representative works from the period 1837-1901. On demand.

319 English Transitional Period (3)
Representative works from the period 1880-1920. On demand.

320 Modern British Literature (3)
Representative works from 20th-century England. On demand.

331 American Women Writers (3)
A survey of American women writers of the 20th century. On demand. Prerequisite: English *22*.

332 Southern American Literature (3)
Emphasis on 20th century authors. Fall semester.

333r Masterpieces of Asian Literature (3)
Study of representative works with emphasis on a country, period, or genre. On demand.

335 African-American Slave Narrative Tradition (3)
Study of slave narratives and subsequent literature influenced by them. On demand.

336 The Development of Medieval Germanic Epic (3)
The major epics of the Germanic tradition, studied in the context of the cultural and historical background out of which they came. May be registered as Humanities 336. On demand.

350 Introduction to the Theory and Function of Literary Criticism (3)
The concepts, terminology, and procedures of formal literary study. Emphasis on the basic theoretical problems of criticism and relation of literary analysis to literary evaluation, etc. Fall semester.

351 History of Literary Criticism (3)
Selected readings from representative literary critics. On demand.

360 Introduction to Linguistics (3)
Designed to make the student aware of language as a field of study; to show the basic assumptions and methods of linguistics; and to introduce the terminology and scholarship in the field. On demand.

361 History of the English Language (3)
A survey of the history of the English language, beginning with its Indo-European backgrounds, tracing the development of Old, Middle, and Modern English through major changes in vocabulary, sound, word formation, and syntax. Fall semester. Prerequisite: *122*.

370 Persuasion and Propaganda (3)
A study of the powers and abuses of persuasion, using historical and contemporary examples. On demand. May not be used for English minor.

375r Creative Writing: Poetry (3)
Instruction and practice in the understanding and writing of poetry. Permission of department head and instructor required to register for credit after 6 hours earned. Spring semester.

376r Creative Writing: Fiction (3)
Instruction and practice in the understanding and writing of fiction. Permission of department head and instructor required to register for credit after 6 hours earned. Spring semester.

395 Greek and Roman Tragedy in Translation (3)
On demand. *See Classics* 395.

400 Seminar in the Novel (3)
A seminar in the senior year designed to integrate the student's understanding of literature. Spring semester.

410 Approach to Composition (3)
Designed to improve the student's writing and to improve the individual's ability as a critic of writing, particularly as a potential teacher of writing; focus on expository prose. Fall and spring semester. Prerequisite: English *122*

420 Early English Drama, Origins to 1642 (3)
The English drama as a literary type, its history and development from Medieval times to 1642, exclusive of Shakespeare. On demand.

421 Later English Drama, 1660-1800 (3)
Study of English drama from the Restoration through the 18th century. On demand.

423 American Novel to 1900 (3)
Representative novels of American romanticism, realism, and naturalism. On demand.

430 Development of the British Novel: from Defoe to George Eliot (3)
The development of the British novel from its origins in the 18th century through George Eliot and her contemporaries. On demand.

431 The Modern British Novel (3)
On demand.

433 Modern Poetry (3)
On demand.

434 Twentieth-Century American Novel (3)
On demand.

435 Modern American Drama (3)
Selected plays of representative dramatists with special emphasis on American drama since 1920. On demand.

443r Major British Figures (3)
A reading course in the works of a major British writer: the writer to be studied will be specified in the schedule of classes. On demand. Maximum *credit 6 hours for the degree.*

445r Major American Figures (3)
A reading course in the works of a major American writer. On demand. *Maximum credit 6 hours for the degree.*

460 Modern English Grammar (3)
An introduction to the system phonological, morphological, syntactical of present-day American English. Emphasis on various recent presentations of this system. On demand. Prereauisites: 360, 361, or special *permission of the department head.*

462 English As a Second Language (3)
This course offers non-native speakers intensive practice in listening, speaking, reading, and writing English. The course is designed to enhance the student's academic coursework in the areas of notetaking, discussion, essay writing, research and documentation, and group presentation. Course will not *apply to any undergraduate major or degree.* Cannot *be taken for graduate credit.*

47 lr Writing Workshop (3)
An advanced seminar in writing with individual projects in imaginative, expository, or critical writing. Permission of department head and instructor required to register for credit after 6 hours earned. On demand. Prerequisites: *two writing courses above 100 level.*

473 Proposals, Articles and Technical Research (3)
Proposal-writing as practiced in government, academic, business, and irtdustry, grounded in persuasive theory. Students will also learn technical research skills and write several technical/scholarly articles. Spring semester. Prereouisue: *121 and 122.*

479r Writing Internship (3)
The writing internship provides 160 hours of hands-on experience for the student who is interested in a career as a writer in business, industry, government, or the helping professions and social services. Students must apply, for the internship during the fall semester to be accepted as writing interns for the spring semester. Student interns work an average of 10 hours per week under the supervision of a professional writer in the Chattanooga area. Spring semester. *Prerequisite: 121 and 122 and approval of* internship *coordinator one full semester in advance. Maximum* 6 *hours credit.*

495 r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See "Departmental Honors," page* 36.

498r Individual Studies (1-3)
Individual study projects by special permission of department head. On demand. Maximum 3 *hours forB.A. in English or* B.S., Secondary English.

499r Group Studies (1-3)
Group study projects by special permission of department head. On demand. *Maximum* 3 *hours for* B.A. in *English or B.S., Secondary* English.

Exercise Science, Health and Leisure Studies

See College of Education and Applied Professional Studies.

Foreign Languages and Literatures

Professor O. Preble-Niemi, *Head*

The department offers the B.A. degree in Foreign Languages with concentrations in French, Greek and Latin, Latin, and Spanish. A student may also pursue a B.A. in Humanities degree with an emphasis in classical civilization. Elementary and intermediate German are offered and may be chosen to fulfill the foreign language requirement. Modem language courses, taught in English, which deal with foreign literatures and civilizations, afford the nonforeign language student a broader perspective of other peoples and cultures.

The department also offers minor programs in Latin, Greek, Classics, Spanish, or French.

A native speaker of a language which is offered for credit by the Department of Foreign Languages and Literatures or anyone with native speaker proficiency in such a language must consult the department for proper placement and permission to enroll.

Independent studies will be offered only for 400-level courses, with the exception of courses in German and the Classical languages, which will be taught at any level in this format only upon availability of staff and mutual consent of student and instructor.

During the summer term, modern foreign language courses of 4 semester hours require 600 minutes of language laboratory time in addition to the scheduled class time.

All incoming students who have three years or more of high school study in a single foreign language (and no college level study of the language) and who wish to continue study in that language will be required to take a placement test to determine their level of competence in that language. A student should begin study of the language in question at the level established by the placement level. Under special circumstances, exceptions may be granted upon appeal to the department.

Classical Civilization

MINOR IN CLASSICS

18 hours in classical civilization including Classics 110,310,395,396,397 and Philosophy 351.
Minimum 2.0 average in the minor.

CLASSICS COURSES

110 **Major Triumphs of Greece and Rome** (3)
Major accomplishments of the Greco-Roman civilization and their impact upon the modern world. On demand.

113 Western **Humanities** 1 (3)
An historical approach to the pivotal ideas, systems of thought, and creations of the Western world from antiquity to approximately 1600 C.E. Emphasis on ancient Greek and Roman thought and the classical tradition. *Corequisite:* English 121

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum *credit four hours.*

300 **Scientific Terminology** (2)
Designed to meet the needs of nonlanguage students. Origin and derivation of English words in common scientific usage. On demand.

310 The Greco-Roman World (3)
The history, culture, and lifestyles of the ancient Greeks and Romans. On demand. *May be* registered *as* History 310.

395 **Greek and Roman Tragedy in Translation (3)**
A study of the origin of tragedy and its dramatic and philosophical development in the works of Aeschylus, Sophocles, Euripides, and Seneca. On demand. *May be* registered as English 395.

396 **Classical Mythology (3)**
A study of the origins and meaning of Greek and Roman myths, their importance for understanding ancient culture, and their influence on later literature and art. On demand.

397 **Greek and Roman** Comedy **in Translation (3)**
A study of the origins, development, and changes in comedy as seen in the works of Aristophanes, Menander, Plautus, and Terence. On demand.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See* "Departmental Honors," page 36

497r Research (1-4)
On demand. ,

49Sr Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

FOREIGN LANGUAGE

101r, 102r Elementary Foreign Language (3-6, 3-6). Basic Grammar, elementary reading, (and conversation for a modern spoken language), 101 fall/ 102 spring. On demand. Student should consult department regarding use in satisfying University foreign language requirement.

213r, 214r Intermediate Foreign Language (3,3). Intermediate foreign language study with grammar review and extensive reading, (conversation for a modern spoken language), 213 fall/214 spring. On demand. Student should consult department regarding use in satisfying University foreign language **requirement.**

French

Foreign Languages (B.A.): French concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: Completion of intensive writing requirement within major (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: one approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Concentration

27 hours French beyond second college year, including French 311-312,321, 331-332, and 323
A minimum of 6 hours of French at the 400 level
2.0 average in all French courses
To meet the requirements for the major, a minimum of 9 hours of 300 level or above must be taken at UTC.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

FRENCH MINOR

18 hours in French, above 101-102, including 211-212; 9 hours must be at the 300 level or above. French 213 cannot be used for credit toward the minor.

FRENCH COURSES

101,102 Elementary French (4,4)
Basic grammar, elementary reading, and conversation. 101 fall/102 spring semester.

199r Special Projects **(1-4)**
Individual or group projects. On demand. *Maximum credit 4 hours-*

211 Intermediate French for Conversation (3)
Intensive oral practice in French with emphasis in acquiring conversational skills and cultural awareness of the French speaking world. Class taught mostly in French. Fall. *Prerequisite:* 101, *102 or 2 years high* school French or approval *from department head.*

212 Intermediate French for Conversation: Perspectives on the French World (3)
Emphasis on oral proficiency and cultural awareness of the French speaking world, in preparation for upper level courses. Class taught mostly in French. Spring. Prerequisites: French *211 or equivalent.*

213 Intermediate French for Reading (3)
Continuation of grammar, and oral practice in French with emphasis in acquiring reading skills. Classes taught mostly in English with discussion in French or in English. Fall. *Prerequisites: 101, 102 or 2 years* high *school French.*

214 Intermediate French for Reading (3)
Readings on French culture, literature and civilization. Emphasis in acquiring reading and translation skills. Classes conducted mostly in French with discussion in English or in French. Spring. *Prerequisites: 211, 213 or equivalent.*

311, 312 Composition and Conversation (3,3)
Selections from French literature, topics of current interest and articles from French newspapers and magazines may be used as a basis for discussions and compositions. 311 fall/312 spring semester on demand. Prerequisites: *211, 212 or approval of the department head,* English 121, 122 with grades o/C or better

321 Advanced French Grammar (3)
Special problems in syntax, illustrative reading, composition. On demand. Prerequisites*: 211, 212 or approval of the* department.

323 Introduction to French Culture (3)
The fine arts, patterns of living, and total life-style of the French people approached through their language. Geographical and historical backgrounds included. On demand. Prerequisites*: 211,212 or approval of the department.*

331,332 Introduction to French Literature (3,3)
Representative works from the beginning to 1800 with attention to cultural, political, and social background. Sequel from 1800 to the present. 331 fall/332 spring semester. On demand. Prerequisites: *211, 212 or approval of the department.*

340 French Internship (3)
A cooperative arrangement between the university and specific elementary or middle schools, social service agencies or businesses involved with either foreign language instruction, service to foreign language-speaking clients, or business transactions with companies abroad. Every semester. Prerequisite: Junior or senior standing and permission *of the* department.

401r Special Topics in French Language or Literature (2-3)
A reading course with emphasis on a field, period, or author, or on a topic of philology or linguistics, or on teaching methods. On demand. *By special arrangement with the head of the department and the instructor. Prerequisites: 311-312,331 -332, or approval of the department.*

The focus of the *following courses may include the development of the novel, the theater, poetry, narrative* techniques, *various critical appraches* to works *within a* century and Francophone literature with particular *emphasis on Quebec Studies.*

407 Seventeenth Century French Literature (3)
On demand. *Prerequisites: 311-312, 331-332, or approval of the department.*

409 Eighteenth Century French Literature (3)
On demand. Prerequisites: *311-312, 331-332, or approval of the department.*

411 Nineteenth Century French Literature (3)
On demand. *Prerequisites: 311-312, 331-332,* or *approval of the department.*

413 Twentieth Century French Literature (3)
On demand. Prerequisites: 311-3/2, *331-332, or approval of the department.*

430 Cultural Experience (6)
An intensive language experience in the United States or abroad. Prerequisites: 311 -3*12,331 -332. Requires approval of Foreign Language Department.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See "Departmental Honors," page* 36

497r Research (1-4)
On demand Prerequisites: *311-312, 331-332, or approval* by the department.

498r Individual Studies (1-4)
On demand Prerequisites: *311-312, 331-332, or approval by the department.*

499r Group Studies (1-4)
On demand Prerequisites: 3 J1-312, *331-332, or approval by the department.*

German

101, 102 Elementary German (4,4)
Basic grammar, elementary reading, and conversation. 101 fall/102 spring semester.

199r Special Projects (1-4)
Individual or group projects. On demand. *Maximum credit four hours* •

211 Intermediate German for Conversation (3)
Grammar review, intensive oral practice in German, limited readings. Fall semester. On demand. Prerequisites: 101, 102 or *two years high school* German.

212 Perspectives on the German World (3)
Emphasis on oral proficiency and cultural awareness, with limited grammar and readings. Spring semester.Prerequisites: German21*1 or equivalency.*

213 Intermediate German for Reading (3)
Grammar review, extensive reading in German, with discussion in English. Fall ' semester. Prerequisites: 102 or two *years high school* German.

214 Intermediate German for Reading (3)
Readings in Germanic culture, literature and civilization. Emphasis on acquiring reading and translation skills. Classes conducted mostly in German with discussion in English or German. Spring semesters. Prerequisites: *211,213 or equivalent.*

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Greek

Foreign Languages (B.A.): Greek and Latin concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved intensive writing course (3 hours)
Oral Communication: One approved oral communication course (3 hours)
Computer Literacy: One approved computer literacy course (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Concentration

18 hours Latin beyond 101,102
12 hours Greek
2.0 average in all Greek and Latin courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

GREEK MINOR

18 hours of Greek above 101 with at least 9 hours at the 300 level or above.
Minimum 2.0 average in the minor.

GREEK COURSES

101, 10? Elementary Greek (3,3)
Elements of the Greek language. Reading of Greek prose. 101 fall/102 spring semester.

199r Special Projects (1-4)
On demand.

310 Readings of Greek Literature (3)
A study of the development of Greek literature with selections from representative authors. On demand.

312 Advanced Greek Grammar and Composition (3)
On demand.

350r Greek Prose (3)
Greek historians, Attic orators, and Greek philosophers considered in different semesters. On demand.

35 lr Greek Poetry (3)
Greek tragedy, comedy, and lyric poetry considered in different semesters. On demand.

425r Special Topics in Greek Literature (2)
Readings in a specific author, genre, or period. On demand.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Italian

101,102 Elementary Italian (4,4)
Basic grammar, elementary reading, and conversation. On demand.

211,212 Intermediate Italian for Conversation (3,3)
Grammar review, intensive oral practice in Italian, limited readings. On demand. ***Prerequisites: 101, 102 or 2 years*** **high** ***school Italian.***

Latin

Foreign Languages (B.A.): Latin concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses, in rhetoric and composition (6 hours)
Intensive Writing: One approved intensive writing course (3 hours) ~"
Oral Communication: One approved oral communication course (3 hours)
Computer Literacy: One approved computer literacy course (3 hours)
Cultures and Civilizations: Option (a) Western Humanities **I** and 11(6 **hours)and Nonwestem Cultures and** Civilizations (3 hours) OR **Option (b) World Civilization I, II, III (9 hours)**
Humanities and Fine Arts: Two approved humanities and fine arts **courses, one from fine arts and one from either (6 hours)**
Behavioral & Social Sciences: Two approved behavioral or social science **courses in two different disciplines (6 hours)**
Natural Sciences: Two approved natural science courses, at least on **including a laboratory** component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester **exercise science activity**

Completion of a minor within the College of Arts and Sciences with a **minimum 2.0 grade point average**

Concentration
21 hours Latin beyond 101,102; 9 hours from Classics **310,**395,396,397
2.0 average in all Latin courses
Minimum of 30 hours of 300 **and** 400 **level** courses
Electives to complete 128 hours

LATIN MINOR

18 hours of Latin above 101 with at least 9 hours at the 300 level or above.
Minimum 2.0 average in the minor.

LATIN COURSES

101, 102 Elementary Latin (3,3)
Elements of the language. Reading of **Latin** prose. 101 fall/102 spring semester.

199r Special Projects (1-4)
Individual or group projects. **On** demand. Maximum credit *4 hours.*

201 Intermediate Latin (3)
A continuation of first year Latin with an intensive review of basic Latin **grammar. Emphasis** on **attaining** reading **skills through** select authors.
Prerequisites: Latin 101, **102** or *2 years of high school Latin.*

202 Intermediate Latin (3)
Selected readings from Latin authors. *Prerequisite: Latin 201 or equivalent.*

310 Readings in Latin Literature (3)
A study of the development of **Latin literature** with selections from **representative authors. On demand.**

312 Latin Prose and Composition (3)
On demand.

350r Latin Prose (3)
Sallust, Caesar, Tacitus, Seneca, Cicero, and Petronius considered in different **semesters. On demand.**

35lr Latin Poetry (3)
Latin lyric poetry, Roman comedy, Latin satire, Horace, Vergil, and Lucretius **considered in different semesters. On demand.**

425r Special Topics in Latin Literature (2)
Readings in a specific author, genre, or period. On demand.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497rResearch (1-4) **,; i.**
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Modern Languages

100 A Profile of French Culture (3)
A humanistic view of the patterns of living and total life-style of the French people with special attention to their art, music, and literature (in translation). Geographical, historical, and linguistic backgrounds included. On demand. *No foreign language credit.*

110 A Profile of German Culture (3)
A humanistic view of the patterns of living and total life-style of the German people with special attention to their art, music, and literature (in translation). Geographical, historical, and linguistic backgrounds included. On demand. *No foreign language credit.*

120 A Profile of Hispanic Culture (3)
A humanistic view of the patterns of living and total life-style of the Hispanic people with special attention to their art, music, and literature (in translation). Geographical, historical, and linguistic backgrounds included. On demand. *No foreign* language *credit.*

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum credit 4 hours. *No foreign* language credit.

201 Modern French & German Literature: Alienation through Conflict (3)
French and German literature in translation; the study of dramatic and fictional works which reveal aspects of man's attempt to understand and explain his world. On demand. *No foreign* language credit.

202 Language, Literature, and the Exile Experience (3)
A literary and linguistic view of the exile experience. Selected readings from the literary outputs of exile communities in Europe and the U.S. Studies in language preservation and rejection in exiled communities. On demand. No *foreign* language *credit.*

230 Contemporary Francophone African Cinema (3)
An overview of recent African films from former French colonies with attention to issues of identity, heritage, and former colonial status. No foreign language credit. Maybe registered as Theatre and Speech 230 or Humanities 230.

300 Masterpieces of French Literature in Translation (3)
Study of representative works from French literature in relation to their cultural context. On demand. No *foreign language credit.*

301 French Women Writers in Translation (3)
Contributions of French women writers to the social, economic and political institutions of French culture. Readings from several disciplines. Topics studied are gender roles, systems of authority, masculine/feminine representations of reality, and the concept of "feminine" writing. On demand. *No foreign language credit.*

302 Latin American Women Writers in Translation (3)
Contributions of Latin American women writers to the social, economic, and political institutions of Latin American culture. Readings from literary selections in several genres. Topics will include gender roles, systems of suthority, masculine/feminine representations of reality, and the concept of "feminine" writing. On demand. No foreign language credit.

310 Masterpieces of Germanic Literature in Translation (3)
Study of representative works from German or Germanic literature in relation to their cultural context. On demand. No *foreign language credit.*

320 Masterpieces of Hispanic Literature in Translation (3)
Study of representative works from Spanish, Catalan, Portuguese, or Latin-American literature in relation to their cultural context. On demand. *No foreign language* credit.

330 Masterpieces of European Literature in Translation (3)
Study of representative works from French, German, or Hispanic literature in relation to their cultural context with emphasis on a specific period, genre, or theme. On demand. *No foreign language credit.*

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Spanish

Foreign Languages (B.A.): Spanish concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: Completion of intensive writing requirement within major (3 hours)
Oral Communication: Completion of oral communication requirement within.major (3 hours)
Computer Literacy: One approved computer literacy course (3 hours)
Cultures and Civilizations: Option a: Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization J, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Concentration

27 hours Spanish beyond second college year, including Spanish 311-312,321-322,331-332, and 323 or325
A minimum of 6 hours of Spanish at the 400 level
2.0 average in all Spanish courses
To meet requirements for the major, a minimum of 9 hours of 300 level or above must be taken at UTC.
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

SPANISH MINOR

18 hours in Spanish, above 101-102, including Spanish 211-212,9 hours must be at the 300 level or above. Spanish 213 cannot be used for credit towards the minor.
Minimum 2.0 average in the minor.

SPANISH COURSES

101, 102 Elementary Spanish (4,4)
Basic grammar, elementary reading, and conversation. 101 fall/102 spring semester.

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum credit *4 hours.*

211 Intermediate Spanish for Conversation (3)
Continuation of grammar intensive oral practice in Spanish with emphasis in acquiring conversational skills. Class taught mostly in Spanish. Fall.
Prerequisite: 101, *102 or 2 years high school Spanish.*

212 Perspectives on the Spanish World (3)
Emphasis on oral proficiency and cultural awareness of the Spanish speaking world, in preparation for upper level courses. Class taught mostly in Spanish. Spring. *Prerequisites:* Spanish *211 or* equivalent.

213 Intermediate Spanish for Reading (3)
Continuation of grammar, and oral practice in Spanish with emphasis in acquiring reading skills. Classes taught mostly in English with discussion in Spanish or in English. Fall. *Prerequisites: 101, 102 or 2 years high school Spanish.*

214 Intermediate Spanish for Reading (3)
Readings on Hispanic culture, literature and civilization. Emphasis in acquiring reading and translation skills. Classes conducted mostly in Spanish with discussion in English or in Spanish. Spring. Prerequisites: *211, 213 or equivalent.*

311, 312 Composition and Conversation (3,3)
Selections from Spanish literature, topics of current interest, and articles from Spanish newspapers and magazines may be used as a basis for discussions and compositions. 311 fall/312 spring semester. On demand. Prerequisites: *211,212 or approval of the department head,* Engfan *121, 122 with grades of C or better*

321,322 Advanced Spanish Grammar (3,3)
Special problems in syntax, illustrative reading, and composition. 321 fall/322 spring semester. On demand. *Prerequisites: 211, 212 or approval of the department.*

323 Introduction to Spanish Culture (3)
The fine arts, patterns of living, and total life style of the Spanish people approached through their language. Geographical and historical backgrounds included. On demand. *Prerequisites: 211, 212 or approval of the department.*

325 Introduction to Spanish-American Culture (3)
The fine arts, patterns of living, and total life-style of the Spanish-American people approached through their language. Geographical and historical backgrounds included. On demand. Prerequisites*: 211,212 or approval of the department.*

331 Masterpieces of Spanish Literature (3)
Readings of representative works from the earliest epic and lyric poetry to the modern novel and theater with attention to cultural, political, and social background. On alternate years. Prerequisites: *211,212 or approval of the department.*

332 Masterpieces of Latin American Literature (3)
Readings of representative works from the Chronicles of the Conquest to contemporary works, with attention to the cultural, political and social background. On alternate years. Prerequisites: 211, *212 or approval of the* department.

340 Spanish Internship (3)
A cooperative arrangement between the university and specific elementary or middle schools, social service agencies or businesses involved with either foreign language instruction, service to foreign language-speaking clients, or business transaction with companies abroad. Every semester. *Prerequisite: junior or senior standing and permission of the department.*

400r Topics in Spanish Literature (3)
Study of topics such as Spanish literature of the Golden Age, 18th and 19th century Spanish literature, The Generation of 1898, and contemporary Spanish literature. On demand. Prerequisites: *311-312, 331332, or approval of the department.*

401r Special Topics in Hispanic Language or Literature (2-3)
A reading course with emphasis on a field, period, or author, or on a topic of philology or linguistics. On demand. By *special arrangement with the department head and the instructor. Prerequisites: 311-312, 331-332,* or *approval of the department.*

402r Topics in Spanish-American Literature (3)
Study of topics such as Spanish-American novel, Spanish-American theater and poetry, and Spanish-American essay. On demand. *Prerequisites: 311-312, 331-332, or approval of the department.*

430 Cultural Experience (6)
An intensive language experience in the United States or abroad. Prerequisites: *311-312, 331-332, or equivalent. Requires approval of Foreign Language* Department.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. Prerequisites: 3J1-312, *331-332, or approval of department. See "Departmental Honors," page 36.*

497r Research (1-4)
On demand Prerequisites: 311-312, *331-332, or approval by the department.*

498r Individual Studies (1-4) ,
On demand Prerequisites: 311-312, *331-332, or approval by the department.*

499r Group Studies (1-4)
On demand Prerequisites: 311-312, *331-332, or approval by the department.*

German

See Foreign Languages and Literatures.

Greek

See Foreign Languages and Literatures.

History

Professor Wright, *Head*

History (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved courses in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: World Civilization I, II, 111 (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Foreign language through second college year

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major

39 hours in history including 103, 104,105, 203, 204, and 301. At least one course (three hours) will be taken from each of the following categories of study:
1. American History: 331,332,335,336,337, 338,341,343,346
IL. European History: 311,312,313,314,315, 317,318,319,323,324,327
III. Non-Western History: 364,365, 367,368,370, 371,372,375,376
IV. 400 -level courses: 401,411 412,415,416,419,422 (400-level courses are topical courses that may be taught as seminars in which enrollment will be limited to 15 students.)
2.0 average in all history courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours
The following special topics courses may be approved by the department head for credit in the most appropriate regional category: 385r, 350,499r.

HISTORY MINOR

A minor in history consists of 18 hours in history including either 104 and 105 or 203 and 204 and at least three hours in each of the following areas at the 300 level or above:

I. American History: 331,332,335,336,337,338,341,343,346
II. European History: 311,312,313,314,315,317,318,319,323,324,327
III. Non-Western History: 364,365, 367,368,370,371,372

The following special-topics courses may be approved by the department head for credit in the most appropriate regional category: 385r, 350,499r.
Electives to complete 18 hours,
Minimum 2.0 average in history courses.

HISTORY COURSES

103 World Civilizations I: World History from the Origins to c. 1000 (3)
This course will introduce students to human achievements of civilizations and cultures in Eurasia, Africa, and the Americas from the origins of civilization to about the year 1000. Rather than taking a strictly chronological approach, it will focus more on the emerging cultures or traditions as expressions of their time and place. The creation of myths, gods and goddesses, Hellenism, Confucianism, Hinduism, Buddhism, Judaism, Latin Christianity, and Islam will be examined as value systems that gave meaning and organizations to human life, reflected in political, social, technological, and artistic achievements. It will also show that these traditions constrained human alternatives, providing a kind of cultural hegemony within cultures, and that these traditions remain important in our modern world. Co- or *prerequisite:* English 121. Every *semester.*

104 World Civilizations II: World History from c. 1000 to 1800 (3)
This course will show how rising wealth and expanding material culture in Southeast China and Northwestern Europe, and the Eurasian impact of the Mongols led to a dynamic global interaction. The demand for commodities stimulated exploration, trade, and imperialism. The course will examine feudalism in Western Europe and Japan, the great imperial states of Eurasia, Africa, and the Americas, and colonialism in Africa, Asia, and the Americas, as well as the rise of the modern state and capitalism. It will show how global cultures mutually interacted, traditions changed and constrained, and what social, cultural, artistic, and intellectual changes occurred. Prerequisite: English 121 *& History* 103. Formerly History 101. Every semester

105 World Civilizations III: World History'form c. 1800 to the Present (3)
A chronological study of how world cultures respond to industrialization and die impact this process had on the world outside of Northwestern Europe, showing the origins of modern economic inequality and the "great division" of the world in to rich and poor regions. It will consider the spread of the nation-state idea, the rise of modem science, the impact of a global economy, and the advent of mass destruction in the World Wars. Ethnicity and nationalism, migration, the changing role of women, mass culture, and international problems will be considered. The tension between traditional values and materialism, technology and environmental problems, and the search for both continuity and change are also topics. Co-Prerequisite: History *104 ; prerequisite:* English 121. Formerly History 102. Every semester

114 Heroes and Villains (3)
A biographical approach to world history. Personalities and their roles in shaping the modern world, to be selected from a variety of fields of human activity: politics, science, philosophy, religion, economics, war, etc. Attention given to interpretations concerning the role of individuals in history. Every semester.

120r Historical Themes (3)
An analysis of some' topic of contemporary significance from an historical perspective. The theme under study to be viewed in a number of historical, settings to add insights to our understanding of the present. On demand.

199r Special Projects (1-4)
Individual or group projects. Every semester. Maximum credit *4 hours.*

203, 204 United States History (3, 3)
A survey of American History from the age of discovery to the present, with special attention to the peoples, ideas, and cultures that created the United States. First semester to 1865; second semester since 1865. Co- or prerequisite, English 121.

208 Introduction to Asian Civilizations: China and Japan (3)
A survey of the major trends of Chinese and Japanese history. Emphasis placed on traditional cultural values, periods of power and greatness, problems of modernization, and recent developments. Students should gain perspective on current conditions in China and Japan. On demand.

210 Western Christianity Since 1,000 (3)
The origins and development of Christian doctrines, church structures, political relationships and social teachings in the west; from c. 1000 through the early twentieth century. May be registered as Religion 210. On demand.

221 Science) Technology, and Society in the Industrial Age (3)
An historical examination of the impact of scientific and technological change in Western society since the advent of the Industrial Revolution. On demand.

301 Seminars in History (3)
A seminar primarily intended for junior majors in history or education - social studies with a history concentration. Focusing on specific topics in American, European, or non-Western history, the course introduces students to historiographical debate, analysis of historical evidence, and current historical methodologies. Prerequisite: 12 *hours in history or permission of the instructor.* Every semester.

310 The Greco-Roman World (3)
The history, culture, and life-styles of the ancient Greeks and Romans. On demand. May *be registered as Classics* 310.

311, 312 Medieval Europe (3, 3)
Europe from the fall of the Roman Empire to the Italian Renaissance; the first semester emphasizing the formation of medieval institutions to c. 1200; the second semester stressing the shattering of the medieval synthesis. 311 fall/312 spring semester alternate years.

313 The Age of the Renaissance (3)
Economic, social, artistic, and political developments, 1300-1500; Italian Humanism; Christian Humanism; and ferment in the Church. Fall semester alternate years.

314 The Age of the Reformation (3)
Religious, political, social, arid economic factors involved in the Protestant and Catholic Reformations in the 16th century. Spring semester alternate years.

315 Early Modern Europe, 1600-1750 (3)
Religious, political, economic, and social development in this period of contradiction and intellectual ferment; Puritans, counter-Reformation; Constitutionalism, Absolutism; Scientific Revolution, the Baroque in the arts. Fall semester alternatte years.

317 The Era of the French Revolution and Napoleon (3)
Developments leading to the French Revolution and the fall of the monarchy, the noble resurgence and the phases of the revolution; accomplishments and failures of the revolution; Napoleon Bonaparte as heir to the Bourbons and the Enlightenment and Revolution, and as a social engineer. Spring semester alternate years.

318 Europe in the Nineteenth Century (3)
Europe from the creation of the Napoleonic Empire to the outbreak of World War I; the development and failure of the Congress System; the operation of the balance of power and international relations; national consolidation and domestic political developments, the rise of imperialism, and the spread of industrial society. Fall semester alternate years.

319 Europe in the Twentieth Century (3)
Political, economic, and social development of the European states from the outbreak of World War I to the present. Special attention given to the problems of world wars and reconstruction, with development of conflicting ideologies, the impact of worldwide depression, the decline of European colonial systems, and the diplomacy of the cold war. Spring semester alternate years.

323, 324 History of England (3, 3)
The history of Britain from the: earliest times to the present; the first semester .* emphasizing constitutional and institutional developments to 1660; the second semester, the growth of political democracy, the British Empire, economic and social change. 323 fall/324 spring semester alternate years.

327 Russian History since 1800 (3)
Characteristics of Tsarist society in the 19th century, attempts to reform the nation, the revolutions of 1905 and 1917, and the Soviet system. Fall semester alternate years.

328 Viking History (3)
An examination of the political, military, social, technological, mythic, and cultural aspects of the Scandinavians expansion form Russia to Vinland from 793 to 1100. On demand.

331 Colonial and Revolutionary America (3)
The colonial period of American history from the earliest settlements in North America to independence and the U.S. Constitution; the European background to colonization, colonial settlements, the development of colonial social, political, and economic institutions, and the causes, course, and consequences of the American Revolution. On demand.

332 Early National Period, 1789-1840 (3)
The Constitution and presidencies of George Washington and John Adams; the War of 1812 and the emergence of nationalism; rise of the frontier; Jeffersonian and Jacksonian democracy, emphasis on political, social, and economic developments that forged the new nation. Alternate years.

335 The Civil War and Reconstruction (3)
The Old South and the causes of the Civil War; the leaders; the chief political, military, and economic developments from the Compromise of 1850 to the end of Reconstruction. Alternate years.

336 The Gilded Age (3)
The United States from the end of the Civil War to 1900. Alternate years.

337 Progressive America: From TR to FDR (3)
An examination of the political, economic, cultural, and diplomatic forces that shaped America in the early 20th century; topics include progressivism, World War I, the roaring twenties, and the Great Depression. Fall semester alternate years.

338 Contemporary America Since 1945 (3)
An examination of political, economic, and social aspects of the recent past, including post-World War II readjustments, the Cold War, the Kennedy years, the Vietnam trauma, and the downfall of the "imperial presidency." Spring semester alternate years.

341 A History of the South (3)
The role of the South in the formation of the nation. Interpretations of the institutions and developments that made the South unique. Alternate years.

343 History of Tennessee (3)
A study of the political, economic, social, and cultural development of the state from the days of the Indians to the present. Spring semester.

346 Afro-American History (3) *J*
A historical survey of Black Americans with some attention to African backgrounds; emphasis on the reaction of blacks to their experience in the New World. On demand.

350 War Through the Ages (3)
The evolution of war as an instrument of national policy and the effects of wars on the world balance of power. Treatment will be episodic, concentrating on the Persian and Peloponnesian Wars, the Punic Wan, the Hundred Years War, the Seven Years War, the Wars of the American and Spanish Revolutions and Napoleon, and the World Wars of the 20th century. On demand

364 Traditional China: History and Culture (3)
A survey of Chinese history and culture prior to the impact of the West Course readings provide a basic political and chronological orientation, but emphasis placed on literary and philosophical writings in translation, and on studies of the social structure of traditional Chinese society. Fall semester, alternate years.

365 Traditional Japan: History and Culture (3)
A survey of traditional Japanese history and culture prior to the impact of the West. Course readings provide a basic political and chronological orientation, but emphasis placed on literary, cultural, and artistic achievements, and on studies of the social structure of traditional Japanese society. Fall semester, alternate years.

367 Modern Japan (3) *j*
A survey of Japan since Perry and the Meiji Restoration. Topics will include Meiji industrialization, foreign policy and Japanese imperialism, economic and social change, the rise of militarism, WWII, occupation, postwar economic growth, political and cultural change, and Japan's role as an economic superpower. Spring semester, alternate years.

368 East Asia in Modern Times. (3)
East Asia since the mid-19th century and the effects of the West; the Opium War, modernization, the Chinese Revolution of 1911, Japanese expansion, Pearl Harbor and'Hiroshima, Mao Tse-tung and the Chinese Communists. Spring semester, alternate years.

370 The Middle East (3)
Background and setting of the modern Middle East; factors influencing Great Power strategy; Islam; rise and decline of the Ottoman Empire; imperialism and the breakup of the Ottoman Empire. On demand. *Prerequisites: History 104, 105, or permission of instructor.*

371 History of Subsaharan Africa to 1880 (3)
Geography and peopte of Africa; origin of traditional African societies; major Sudanic empires; Islamic impact on Africa; oral traditions; slave trade and its consequences; African artistic, musical, architectural, arid religious traditions; Africa and the age of discovery; Swahili city states; African commerce and technology; major central and southern African political developments. Fall semester, alternate years. Formerly 211.

372 History of Subsaharan Africa, 1880-Present (3)
Partition of Africa; ideological underpinnings of imperialism; growth of colonial systems and the African reaction; colonial devolution and independence; apartheid; the European colonial legacy; response of traditional African social and political structures to technological modernity; nature of modern African cultural trends and developments. Spring semester, alternate years. Formerly 212.

375 Colonial Latin America (3)
Survey of colonial Latin America beginning with contact with Spain in the 16th century until the movements for Latin America Independence in the first quarter of the nineteenth-century.

376 Latin America from Independence to the Present (3)
This course is designed as a survey of Latin America history from the movements for independence from Spain and Portugal beginning in the first quarter of the nineteenth century until the present. Specific topics will include the colonial heritage of Latin America, the roots of independence, the growth of nationhood, nineteenth- and twentieth-century economic development, *caudiUismo,* and twentieth-century politics (particularly instances of dictatorship).

385r National History (3)
A course dealing with a selected national history. On demand. Prerequisites: *by special* arrangement *with the* department *head and* instructor; *specific* prerequisites to *be* given when *the topic is* announced.

401 Senior Tutorial (3)
Directed readings, special study, and investigation. Primarily for senior majors in history and others interested in an intensive study of historical problems. Every semester.

411,412 American Intellectual and Social History (3,3)
Survey and analysis of American assumptions, social attitudes, and institutions, and their effects on American life. First semester coverage extends to 1865.411 fall/412 spring semester alternate years.

415,416 Economic History of the United States (3,3)
First half from colonial period to 1873. Origins, development, and expansion of the American economy with emphasis on roles of government and business. Relationship between'economic growth and social developmenfdeslgried'to provide perspective on problems of modern society. 415 fall/416 spring semester alternate years. May *be registered as Economics 415, 416.*

417 The History of the Blues (3)
Origins of the blues in the U.S.; emphasis on historical antecedents and the social as well as economic conditions which shaped the nature and content of the music; patterns of musical migration; emphasis on various styles including Delta, Piedmont, Texas, Chicago, and West Coast Blues. Fall semster, alternate years.

419 The City in American History (3)
Role of the city in American history from colonial times to the present; emphasis on emergence of the 20th-century metropolis; city planning, problems of modern mass living, and other topics peculiar to urban history also considered. On demand.

422 European Women's History to **1800** (3)
A survey of the history of European women in the medieval and early modern eras. Topics covered will include pre-modern ideas about gender and women; women's role in and relationship to religion; women's work; women's position within the household; the effect of class, marital status, and urban vs. rural residence o n women; the emergence of women's rights; and the effect of historical changes such as the Reformation and capitalism on the condition of women. Alternate years.

490 Internships in History (1-3)
Designed to provide practical experience with the materials and problems encountered by history professionals outside the traditional academic setting. Placements will be arranged on an individual basis. On demand. *Prerequisites:* junior standing, B average in history courses, and *permission of instructor.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. *See* "Departmental Honors," *page* 36. .

497r Research (1-3)
Every semester.

498r Individual Studies (1-3)
Every semester.

499r Group Studies (3)
Every semester.

Geology

See Physics, Geology *and Astronomy*.

Human Ecology

See CoUege of Education and Applied Professional Studies.

Humanities

See Interdisciplinary Studies.

Human Services

See *College of Health and Human Services.*

Interdisciplinary Studies

Professor Summerlin, Head

The Department of Interdisciplinary Studies coordinates a number of programs leading to baccalaureate degrees as well as several other nondegree programs. Because of their interdisciplinary nature, these programs draw upon the varied resources of a number of departments.

Degree program: Humanities (International Studies concentration available) (B.A.). Nondegree program: University Studies.

Humanities

Professor J. Trimpey, Coordinator
The humanities generally comprise languages and literature, philosophy, religion, history, and the fine arts. With the approval of the Faculty Board for the Humanities, each major designs a program of study by selecting appropriate courses from those disciplines and from the humanities courses listed below.

Humanities (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing. (3 hours)
Oral Communication: One approved course in oral communication. (3 hours)
Computer Literacy: One approved course in computer literacy. (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR option (b) World Civilization I, 11, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course. (3 hours)
Exercise Science, Health and Leisure Studies 02! plus one additional semester exercise science activity

Foreign language through second college year
Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major **and** related courses

45 hours approved program of studies related to the culture of a time and place (America, Europe, or the non-Western world) or to a major idea or theme lending itself to analysis through the disciplines of the humanities. Focus on human experience as revealed in the religious, intellectual, artistic, linguistic, and social actions which characterize the chosen area of study. No more than 15 hours at 100-200 level and no more than 18 hours in any one discipline. Maximum of 15 of the 45 hours may be awarded by the Faculty Board for the Humanities for independent study on campus or for knowledge gained in travel or in work.

International Studies Concentration
45 hours approved program of studies related to the culture of a time and place (excluding America).
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

HUMANITIES COURSES

199r Special Projects (1-4)
Individual and group studies. On demand.

219 African-American Literature (3)
See English 219.

230 Contemporary Francophone African Cinema (3)
See Modern Languages 230.

257 The Romantic Experience (3)
See English 257*

300 The Vietnam Conflict: Then and Now (3)
An introduction to the Vietnam War, its development, its meaning, and its impact on the social, political, economic, and cultural identities of the U.S. and Vietnam.

311 Music of the World (3)
See Music 311.

335 African-American Slave Narrative (3)
See English 335.

336 The Development of Medieval Germanic Epic (3)
See English 336.

385r International Fiction (3)
A study of works of fiction by writers from the international community, exclusive of works from and about the British Isles, Canada and the United States. Content may vary. *Pre-requisite:* English 122.

397 Music, the Arts, and Ideas (3)
See Music 397.

483 Feminist Theory (3)
See Philosopy 483.

490 Senior Educational Experience (3)
Thesis; oral and written presentation of progress required. The complete project will be presented for approval to the Faculty Board for the Humanities in the student's final semester. On demand. *Prerequisite:* senior standing, *final semester.* May not be *taken* concurrently with 497r.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See "Departmental* Honors," page 36.

497r Research (1-4)
On demand, Prerequisite: approval *of the coordinator and the department head.*

498r Individual Studies (1-4)
On demand. *Prerequisite: approval of the coordinator and* the deportment *head.*

499r Group Studies (1-4)

INTERDISCIPLINARY STUDIES MINORS

Asian Studies
John Trimpey, Coordinator
18 hours selected from the following courses: Anthropology 333; English 233, 333n Geography 405; History 208,364,365,368,369; Humanities 300. Not more than 6 hours may count toward both the major and this minor.
Minimum 2.0 average in the minor.

Africana Studies
18 hours selected from the following courses with at least 8 hours at the 300-400 level: Anthropology 332; Criminal Justice 316; History 346,371,372; Psychology 242; Sociology 305,430; English 219,335; Music 317; Social Work 210; Political Science 322.
Minimum 2.0 average in the minor.

International Studies
John Trimpey, Coordinator
18 hours including POLS 102 or HIST 102, French or Spanish or German 212; plus 12 hours of course work selected from International Studies approved courses listed below.
Courses must be chosen from outside the student's major, must be distributed over at least two different academic disciplines, and must include at least 8 hours at the 300-400 level.
First year foreign language courses, as well as 213, 214, cannot be applied toward the minor.
Corequisites: Initial three semesters of a modern foreign language related to the approved program of study, excluding 213,214 foreign language courses.
Minimum 2.0 average in the minor.
International Studies Approved Course list: Art 431,432; Anthropology 208, 307,311,332,333,350,440; Economics 404,426,444,453; English 233, 333r, 431,443n French 323,331,332; Environmental Science 250; Geography 103,104,250,305,409; History 208,318, 319,324,327, 364, 365,367,368,370,372,385r; Humanities 300,311,385r, 499r; Music 311, Religion 211, 213,313,318, 362,417; Political Science 242, 244,343r, 345,346,441r, 442r; Sociology 310, 365,440; Spanish 323,325, 331, 332; University Studies 202, 301; Modern Languages 100, 110, 120, 201, 301, 310, 320, 330; Business Accounting 481; Business Finance 482; Business Management 438,439,483; Business Marketing 318,484.

Women's Studies
Leila Pratt, Coordinator
18 hours required with at least 8 hours at the 300-400 level:
University Studies 200
6 hours from English 331, Modern Languages 301,302, University Studies 301, English 445r,* Philosophy/Humanities 483, History 499r*
6 hours from Anthropology 307,350, Social Work 420, Economics 417, Human Services 204, Psychology 451, Political Science 336
Nursing 222
Minimum 2.0 average in the minor
'Approved for Women's Studies credit only when topic is a woman or women.

University Studies

Professor Summerlin, *Head*

University Studies offers a variety of interdisciplinary courses and seminars which may be taken for elective credit or, when approved, may satisfy certain major or general education requirements.

100 Principles of Effective Study (3 hours institutional credit)
The study and development of reading and study skills that are required for college level study. Every semester. *Credit not* applicable toward *any degree. Prerequisite: approval of the instructor.*

101 The Freshman Seminar (3)
An introduction to the nature of university education and a general orientation to the functions and resources of the University. Designed to help freshman adjust to the University, to develop a better understanding of the learning process, and to acquire basic academic survival skills, and to enrich their appreciation for the University's commitment to development of the intellect. Elective available to all students with fewer than 30 hours. Recommended during initial semester for students who enter the University with fewer than 15 hours. Offered Fall and Spring semesters.

199r Interdisciplinary Seminars (1-4)
Specific topics, themes, and subjects for which the interdisciplinary approach is especially useful. On demand.

200 Introduction to Women's Studies (3)
An examination of human experience from a feminist perspective. An exploration of the ways in which women have been defined and have defined themselves. A multi-disciplinary teaching context with focus on women's self identity, women's identity in families, and women's identity in society. Prerequisites: English *121, 122.*

202 Women's Issues in South Asia (3)
A survey of contemporary issues for women in South Asia. On demand.

210 Death and Life in Literature (3)
The study of themes of death and dying in imaginative literature, with emphasis on the correlation between fictional representations of death and of life, its contents and values; and on the connection between metaphors of death and approaches to textual interpretation. Primary texts include poetry, short stories, essays, novels, and plays. On demand.

225 Education in East Asia (3)
A systemic study of education in three developed countries (Japan, South Korea, and Singapore) and a compairson of the influence of educational philosophies upon institutions of that region and the U.S. Prerequisite: Western Humanities I.

301 Feminist Literary Criticism (3)
The history, theory and practice of feminist literary criticism studied in cultural context.

311 Science Concepts and Perspectives (3)
Emphasis on understanding science from a personal and social perspective. Overall goal to develop values, attitudes, and skills through a study of science topics organized around themes rather than disciplines. Follows the recommendations of the National Research Council's Notional Science *Education Standards. Prerequisites: Two laboratory science courses. Corequisite: Education 412*

340 Concepts of Language Literacy: Acquisition, Development, and Usage (3)
Examinesthe theoretical framework underlying the development of language and the communication processes. Designed to build an understanding of the concepts and skills of language development with an emphasis on facilitating clear thinking and effective communication in children of differing abilities and cultural backgrounds. Emphasis placed on listening, speaking, writing, and reading and on synthesis of the literary elements acquired from college coursework. *Prerequisite: (for education majors* only) EDUC 306,323; English 228; Human Ecology *240, 241; Corequisite: EDUC 413.*

401 Laboratory Procedures and Safety (1)
Develop science laboratory and field teaching competencies appropriate for the preservice secondary science teacher with emphasis on the content of the respective teaching major. Spring Semester. *Corequisite: Education 431* (science section) *for secondary* natural science majors. Prereouisite: 30 *hours* in natural sciences or permission *of* instructor.

440 Social Studies Topics, Concepts and Perspectives (3)
An examination of concepts, theories and principles of history, sociology, anthropology, geography, political science, and economics in curricula typically developed for children age 6-14. Emphasis on diverse presentation. Prerequisite: EDUC 306. *Corequisite: EDUC 411.*

498r Individual Studies (1-4)
Oh demand. Aproval of department head.

499r Interdisciplinary Seminars (1-4)
Specific topics, themes, and subjects for which the interdisciplinary approach is useful. On demand.

Mathematics

Professor S. Kuhn, *Acting Head*

The Department of Mathematics offers two degree programs, the B.A. and the B.S. in Applied Mathematics.

The B.A. is the traditional liberal arts degree with a major in mathematics.

The B.S. in Applied Mathematics is a degree program designed to examine the growing influence of mathematics in business and industrial practices. The student must select a concentration in one of the following areas: actuarial science, computer science, corporate science, or systems science.

Students who plan to teach at the secondary school level must meet new state licensure requirements. These students need to consult with advisors in the College of Education and Applied Professional Studies and the Department of Mathematics.

In addition to its own degree programs, the Department provides extensive support for other programs requiring mathematics courses, and for the University's General Education requirements. It also offers a minor in mathematics.

All entering students except those transferring with an appropriate college level mathematics course or those receiving advanced placement credit must take the Mathematics Placement Test. The UTC Department of Mathematics uses the test score both to assess the student's pre-college preparation and to determine whether pre-requisites for certain of the 100 and 200 level courses are met. Students not making the required minimum must take Mathematics 105 or Mathematics 106, depending on the score. Test schedules are printed in the fall, spring and summer schedule of classes.

Applied Mathematics (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: ENGL 278 (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: CPSC 150 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and 11 (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, 11, HI (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: 2 approved behavioral or social science courses in two different disciplines (6 hours; approved related courses below will apply)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours; approved related courses below will apply.)
Mathematics: One approved mathematics course (3 hours; approved courses below will apply.)
Statistics: One approved course in statistics at the 300 or 400 level (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Mathematics (144 or 145)*, 151,152,161,162, 212, 245, 255,295, 308, 350, 407,408,412, and either 414 or 424
9 hours of 300 and 400-level mathematics courses excluding 303,3Q7,415,416
Economics 101, 102
One of the following concentrations

1. **Actuarial Science: Accounting 201, 202,335; Finance 302,321,337; either Marketing 313 and 450 or Economics 460; one elective from: Accounting 300, Finance 318, Economics 301,324,429.**
2. **Computer Science: Computer Science 160,250,251, 260,312; Either Mathematics 418 or 428 (may not be used to satisfy math elective course); one elective from Computer Science 300-400 level courses.**
3. **Corporate Science: Accounting 201, 202; Finance 302; Management 311; Economics 324,429; either Marketing 313 and 450 or Economics 460; one elective from business administration or economics 300-400 level courses (excluding Management 356).**
4. **Systems Science: Physics 230/280, 231, 232, Engineering 271, 272,325, 373,379, and one additional course from Physics 310,341,342,411,412, Engineering 303,307,375,478.**

A *student may not elect both the corporate science and the actuarial science* concentrations.

No more than 32 hours from the School of Business Administration may be credited toward the degree.
2.0 average in all mathematics courses and also in all 300,400-level mathematics courses

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

•Mathematics sequence may begin with 144 and/or 145 rather than 150 depending on preparation.

Mathematics (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: ENGL 278 (3 hours) ,
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: CPSC 150 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR option (b) World Civilization I, II, HI (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: 2 approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours; approved related courses below will apply)
Mathematics: One approved mathematics course (3 hours; approved courses below **will apply)**
Statistics: One approved course in statistics at the 300 or 400 level (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Foreign language through second college year

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average.

Major and related courses

Mathematics **(144** and/or 145)*, 151,152,161,162, 212,245, 255, 295,321, 350
Five additional courses at the 300-400 level excluding 303,415,416 but including the following:
At least one course from 308,403,407,414,440,445,460,470
At least one course from 408,410,412,418,422,424,428,450,454
Physics 230/280, 231
2.0 average in all mathematics courses and also in all 300,400-level mathematics courses
Decisions concerning the most appropriate *300-400 level courses for each* student should be *made* in consultation with mathematics advisers, particularly *for those* ***students who are*** **seeking teacher** ***certification in mathematics and students who*** *are* planning graduate study.
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

'Mathematics sequence may begin with 144 and/or 145 rather than 151/152 depending on preparation.

MATHEMATICS MINOR

Required courses: Mathematics 151,152,161,162,212,245,255
Elective courses:
Three courses totaling at least 9 hours from any 300-400 level mathematics courses (excluding 415,416)
A 2.0 average on the 300-400 level courses as well as on all courses in the minor
At least two of the 300-400 level courses must be taken at this institution
'Mathematics sequence may begin with 144 and/or 145 rather than 151/152 depending on preparation.

MATHEMATICS COURSES

A minimum ***grade of*** **C must** ***be made on any mathematics course used as a*** **prerequisite** ***for any other mathematics course.***

105 Elementary Algebra (4 hours institutional credit)
Review of fractions, percents, and decimals. Basic topics in algebra, including operations with signed numbers and polynomials, linear equations and inequalities, factoring, rational expressions, radicals, basic graphing techniques, and elementary applications. Placement level 05. Every semester. *Credit not* ***applicable toward any degree.***

106 Intermediate Algebra (4 hours institutional credit)
The real number system, first degree equations and inequalities, exponents and polynomials, factoring, rational expressions, rational exponents and roots, linear equations and inequalities in two variables, quadratic equations, systems of equations, absolute value equations, functions and applications. Every semester. Credit not applicable toward any *degree. Prerequisite: 105 with* minimum **grade** ***of Cor one year of*** **high** *school algebra and placement level 15.*

116 Mathematical Concepts for Elementary Teachers (3)
Mathematics as a postulational system; nature of proof; sets, relations, functions; concepts of geometry. Every semester. Prerequisites: Mathematics 115 (with *minimum grade ofC).* (Fall 1999 last time offered)

123 Mathematics in Our Modern World (3)
An introduction to the nature and techniques of mathematics for non-technical majors. Applications of mathematics to the solution of historical and modern problems will be discussed by selecting topics from the mathematics of finance, the laws of growth and symmetry, graph theory and management science, or the mathematics of social choice and voting schemes. Every semester. Prerequisites: LTC Math *placement level 20 or 106 with* minimum *grade* ***of C. Formerly Math 120.***

131 College Algebra (3)
This precalculus course is designed primarily for students majoring in business, life sciences, and the social sciences who intend to take the calculus course Math 136. Topics include polynominal functions, exponential and logarithmic functions, arithmetic and geometric sequences, mathematics of fincance, growth and decay, systems of linear equations, matrices, and geometric linear programing. Mathematical models will be taken primarily from the fields of business, biology, and the social sciences. Every semester. Prerequisites: UTC Math placement level *20 or* 106 with minimum grade *of C. Credit not allowed in 131* ***after 136,144,150, or 151*** *with grades of Cor better.* Credit allowed in both *131 or 144 only with permission of the* Mathematics Department. Formerly Math 13 5.

136 Calculus for Management, Life, and Social Sciences (3)
Introduction to calculus: limits, differentiation of functions, optimization, marginal analysis, integration, the Fundamental Theorem of Calculus, applications of integration. Every semester. Prerequisites: UTC Math Placement level 30 or Math 131 or 144 or 135 with *minimum grade* C. Credit not *allowed* in I36a/terI50orI5I.

144 Precalculus 1 (3)
This precalculus course is designed primarily for students majoring in Mathematics, the physical sciences, and Engineering who intend to take Math 145, Precalculus II, and the calculus courses Math 150 and 151. Topics include solving polynomial equations and inequalities; complex numbers; the Fundamental Theoram of Algebra; rational functions; graphing techniques; functions; exponential and logarithmic functions; mathematical induction. Mathematical models will be taken primarily from the fields of engineering, biology, and natural sciences. Every semester. Prerequisites: UTC Math **Placement level** ***20 or*** **Math 106 with** ***minimum*** *grade ofC. Credit will not be allowed in* ***144*** *after 136,* 145, 150, or 151 with a grade o/C or better. Credit **allowed** ***in both 131 and 144 only*** **with** *premission of the Mathematics Department.*

145 Precalculus II (3)
This precalculus course is designed primarily for students majoring in Mathematics, the physical sciences, and Engineering who intend to take the calculus courses Math 150 and 151. Topics include solving trigonometric functions, identities, and equations; complex numbers; conic sections; sequences; and other selected topics. Every semester. Prerequisites: UTC Math **Placement level** ***30 or*** *Math* ***144*** *or* ***135 with*** *minimum grade of C. Credit will not be* ***allowed in 145 after 150*** *or* ***151*** *with a grade ofCor better.* Students *wishing to use* ***Math 131 as a prerequisite must*** *secure the permission of the Mathematics* ***Department.***

151 Calculus I (3)
The calculus of functions of one real variable for majors in Mathematics, the physicla sciences, and Engineering. Precise definitions of limits, derivatives, and integrals including Riemann summs; applications of these concepts and the Fundamental Theorem of Calculus. Every semester. *Prerequisites:* UTC Math ***Placement level 40 or 145*** *with a minimum grade of C. Corequisite: Math 152.* Formerly Math *150.*

152 Calculus I Laboratory (1)
Calculator and computer treatment of problems and topics in Math 151 using graphical, numerical, and symbolic methods. Laboratory, 2 hours. Pre-or *Corequisite: Math 150 or* 151.

155 Honors Calculus (4)
Calculus of functions of one variable with applications; historical, biographical, philosophical material. Fall semester. *Prerequisite: Brock Scholar,* others by consent *of the department head. Credit not* allowed in both 150 or 151 and 155 or in 136 *after 155. May be* substituted *for 1*50 or 151 *in* meeting all requirements.

160 Calculus II with Analytic Geometry (4)
Additional topics in analytic geometry; applications of integration; transcendental functions; hyperbolic functions; techniques of integration, infinite series. Every semester. Prerequisite: *150* with *minimum grade* o/C. (Fall 1999 last time offered)

161 Calculus II (3)
Additional topics in the calculus of functions of one real variable. Applications of integration, techniques of integration, infinite series, and convergence tests. *Every semester. Prerequisites: Math* Placement 150, or 151 *with a grade* o/C. Corequisite: Math 162. Formerly Math 160.

162 Calculus II Laboratory (3)
Calculator and computer treatment of problems and topics in Math 161 using graphical, numerical, and symbolic methods. Laboratory, 2 hours. Prerequisites: Math 152. Pre- or Corequisite: Math 160 or 161.

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum credit 4 hours.

210 Introductory Statistics (3)
An introductory course suitable for students in a variety of disciplines.This course will teach students to interpret, develop, and use statistical and probabilistic models of real world phenomena. It will develop the concepts of incertainty, probability, and statistical significance, and will indicate how these concepts arose and how they aid our understanding of the universe. Students will learn how to communicate and solve practical problems using statistical vocabulary and notation, and appropriate technology. Topics covered will include: nature, sources, collection, presentation, and analysis of data; measures of central tendency; variability, skewness, and kurtosis; probability and its role in inferential statistics; normal distribution and the Central Limit Theorem; sampling distributions; estimation and hypothesis testing; regression and correlation; analysis of variance; nonparametric methods. Every semester. *Prerequisites:* LTC Math Placement level *20 or 106 with* minimum *grade* o/C.

212 Elementary Linear Algebra (3)
Systems of linear equations, matrix algebra, determinants, geometric vectors, vector spaces, linear transformations, eigenvalues and eigenvectors, inner product spaces. Every semester. *Prerequisite: 150 or* 151 *with a* minimum grade *of* C.

245 Introduction to Differential and Difference Equations (3)
First order and second order linear differential and difference equations, systems of equations and transform methods. Every semester. Prerequisite: 160 or 161 un'th *a minimum grade of* C, pre- or corequisite: 212 with *a minimum grade* o/C.

255 Multivariate Calculus (3)
Lines, curves, and surfaces; partial derivatives, gradients, divergence and curl; multiple integrals and vector analysis. Every semester. Prerequisites: 160 or 161 and 212 with minimum grades o/C.

295 Foundations of Mathematics (3)
Introductory concepts of sets, functions, equivalence relations, ordering relations, logic, methods of proof, and axiomatic theories with topics from combinatorics, graph theory, or abstract algebra. Fall and spring semesters. Prerequisite: 160 or 161 *with minimum grade* o/C. This *course is a prerequisite for 321, 350,403,*410,*412, 422, 430 and 452.* Mathematics majors *should* enroll in it during their sophomore year.

303 Discrete Structures (3)
Topics from combinatorics, graph theory, abstract algebra, and formal logic. Designed to acquaint students with some of the terminology, concepts, and » techniques of several areas of discrete mathematics, especially those often applied in computer science, and to give students an appreciation for the nature and utility of precise definitions and careful logical arguments concerning their consequences. Fall and spring semesters. Prerequisites: Mathematics 160 or 161 or 225 with minimum grade *of* C and Computer *Science 118 or 121 or 150 or* 151' or equivalent. *Not open to mathematics majors.* Credit not allowed on both 303 *and 403.*

307 Applied Statistics (3)
Introduction to probability and statistical methods with applications to various disciplines. A study of some basic statistical distributions, sampling, testing of hypotheses, and estimation problems. Fall and spring semesters. Prerequisite: 160 or 161 with *minimum grade* o/C. Credit *not allowed in both 307 and* 407-408.

308 Numerical Methods (3)
Accuracy and significance of approximate calculations, finite differences and interpolation, solutions of non-linear equations, systems *of* linear equations, numerical differentiation and integration, solutions of ordinary differential equations. Fall and spring semesters. Prerequisites: Computer *Science* 118 or 121 or 150 or 151 or equivalent; Mathematics 212 and Mathematics *245 with minimum grades of C*

321 Introduction to Modern Algebra (3)
Integral domains, rings, fields, groups, elementary number theory, and other selected topics. Spring semester. Prerequisites: *212,* 295 (or permission *of* instructor) *with minimum grades* o/C.

350 Fundamental Concepts in Analysis (3)
Classical treatment of the basic concepts of calculus: limits, continuity, differentiation, Riemann integration, sequences and series of numbers and functions. Fall semester. Prerequisites: 245, 255, 295 with *minimum grades of C.*

401 Mathematics of Interest (3)
Mathematical theory of Interest with applications, including accumulated and present value factors, annuities, yield rates, amortization schedules and sinking funds, depreciation, bonds and related securities. This class is recommended for students planning to take actuarial exams. Fall semester alternate years. Prerequisites: Mathematics 160 or 161 with a *minimum grade of Cor permission of* the instructor.

403 Graph Theory and Combinatorics (3)
Planar graphs, circuits, graph coloring, trees, general counting principles, generating functions, recurrence relations with applications to computer science including tree traversal, grammars, languages, and finite-state machines. Fall semester. Prerequisites: Mathematics 295 with a m'nimum grade o/C, and either Computer Science 118 or 121 or 150 or equivalent. Credit not allowed in both 403 and *303.*

407 Introduction to Probability and Statistics (3)
Introduction to the theory of probability and its-applications, counting techniques, sample spaces, random variables and their distributions, mathematical expectation, moment generating functions, binominal, Poisson, and normal distributions/Central Limit Theorem. Fall semester. Prerequisite: 255 *with minimum grade of* C.

408 Mathematical Statistics (3)
A continuation of 407 with an introduction to the theories of point and interval estimation, hypothesis testing, regression and correlation analysis, goodness of fit, chi-square, t and F distributions. Spring semester. *Prerequisite: 407* with minimum grade *of* C.

410 Number Theory (3)
Divisibility, primes, congruences, Fermat's Theorem, number theoretic functions, primitive roots and indices, the quadratic reciprocity law. Summer on demand. Prerequisites: either 245 or 255, and 295 *with minimum grades* o/C.

412 Linear Algebra and Matrix Theory (3)
Vector spaces, linear transformations, eigenvalue and similarity transformations, orthogonal and unitary transformations, normal matrices, Jordan form. Fall semester. Prerequisites: *212, 245,* 295 with minimum grades o/C.

414 Operations Research (Linear) (3)
Introduction to linear programming, duality, transportation and assignment problems, integer programming. Spring semester alternate years. *Prerequisites:* ***Computer Science 118 or 121 or 150 or equivalent,* Mathematics 212 with minimum *grade ofC, or approval of instructor.***

415 Numeric Concepts for Elementary Teachers (3)
Designed to reinforce mathematical concepts for those teaching in the elementary grades. Emphasis on the relationship between mathematical ideas and reality. Logic and set operations, algebraic systems, and number systems included. Summer on demand. Prerequisites: 115, 116 *with minimum grades of* C **or *equivalent teaching experience. Not applicable on mathematici major.***

416 Geometric Concepts for Elementary Teachers (3)
Designed to reinforce the understanding and use of basic geometric concepts for those teaching in the elementary grades. The inductive and deductive approaches to geometry will be considered. Topics include parallelism, congruence, similarity, perimeter, area, volume, networks, and topological concepts. Summer on demand. Prerequisites: 115, 116 with *minimum grades ofC,* ***or equivalent teaching experience. Not applicable on mathematics major.***

418 Advanced Numerical Methods (3)
A more extensive treatment of the material of Mathematics 308 with emphasis of the methods of obtaining numerical solutions of ordinary and partial differential equations, and systems of linear equations. Spring semester. ***Prerequisites: 255, 308 with* minimum grades *of* C*, or approval of* instructor.**

420 Applied Statistical Methods (3)
Intermediate applied statistical analysis and model building. Covers One and Two Factor Analysis of Variance, Simple and Multiple Regression and Correlation, and Time Series Analysis. Spring semester. This course is recommended for students planning to take actuarial exams. Prerequisites : **Mathematics *307 or 407 or Engineering 322 with a* minimum grade *of* C or *permission of the* instructor.**

422 Introduction to Point Set Topology (3)
Introductory set theory, topologies and topological spaces, continuous mappings, compactness, connectedness, separation axioms and metric spaces. Summer oh demand. Prerequisite: 295 with *minimum grade* o/C.

424 Operations Research (Non-Linear) (3)
Network flows, Markov chains and applications, queuing theory and applications, inventory theory, decision theory, and games. Spring semester alternate years. Prerequisites: *Computer* Science 118 or 121 or 150 or equivalent, **Mathematics *307 or 407 with minimum grade* o/C*, or approval of* instructor.**

428 Packages for Mathematical Computations (3)
The nature of libraries of procedures for solving mathematical problems, including the design parameters, selection of algorithms, problems with reliability and transportation. Several major mathematical packages will be examined in detail, including IMSL, UNPACK , EISPACK , MINPACK .On demand. Prerequisites: *Computer Science 118 or* consent *of* instructor; Math ***212/245, and one of the following: Math 308,* Engineering *225, Computer Science*** *231 with* minimum grades *of* C.

430 The Historical Development of Mathematics (3)
Examination of central ideas, major developments, and important issues in mathematics from ancient times to the present. Historical overview of the evolution of the discipline through comparative examination of specific theories and results. Alternate fall and summer. Prerequisite: 295 with *a* minimum grade o/C.

440 Applied Analysis (3)
Vector analysis through Stokes' Theorem and the Divergence Theorem. Topics in advanced calculus including implicit functions, Jacobians, interchange of limit processes, and uniform convergence of series of functions; introduction to power series solutions of differential equations. Spring semester alternate years. Prerequisites: *245, -255 with* minimum grades o/C.

445 Advanced Differential Equations (3)
Systems of differential equations; existence and uniqueness theorems; linear systems; phase plane analysis; stability theory; applications. Fajl semester alternate years. Prerequisite: *245, 255 with minimum grades* o/C.

450 Modern Analysis (3)
Differentiation; inverse and implicit function theorems; functions of bounded variation, integration and measure; integration on manifolds; Stokes' and Green's Theorems; other selected topics. On *demand. Prerequisite: 350 with* ***minimum grade of C.***

452 Basic Concepts of Geometry (3)
Deficiencies in Euclidean geometry, Euclid's parallel postulate, introduction to non-Euclidean geometry, consistency and validity of non-Euclidean geometry, incidence geometries, affine geometries, linear, planar, and spatial order properties. Summer on demand. Prerequisite: 295 with minimum grade o/C or **approval *of instructor.***

454 Abstract Algebra (3)
A study of special topics from advanced algebra, various algebraic structures, and the applications of algebra. On demand. Prerequisite: *321 or 412 with* ***minimum grade ofCor approval ofinstructor.***

460 Techniques of Applied Mathematics (3)
Additional topics in vector calculus; series of orthogonal functions; integral transforms; treatment of some elementary partial differential equations arising in applications. Spring semester alternate years. Prerequisite: *245, 255 with* ***minimum grades of* C.**

470 Introductory Complex Variables (3)
Complex numbers; differentiation and integration of functions of a complex variable; analytic functions; Cauchy's Theorem; power series; residues and poles; conformal mapping; contour integration. Fall semester alternate years. *Prerequisites: 245, 255* with minimum grades o/C.

475 Research Seminar (1)
Investigation of special topics in mathematics using the directed research technique. On demand. Prerequisite: approval *of department. Graded satisfactory!* ***no credit.***

495r Departmental Honors (1-3 hours per term, **4** hours for the two terms) On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Music

Cadek Department of Music

Professor Sanders, *Head*

The requirements for entrance and graduation as set forth in the catalog are in accordance with the published regulations of the National Association of Schools of Music and the Tennessee regulations for certification of teachers.

The Cadek Department of Music offers two degree programs at the undergraduate level: Bachelor of Arts with a major in music and the Bachelor of Music. The B.M. degree provides four concentrations for the major: instrumental performance, vocal performance, sacred music, and theory/composition. The B.M. degree in music education provides two concentrations for the major: instrumental and vocal.

The B.A. degree is offered students who desire a strong liberal arts background with a major in music. Approximately one-third of the four year program is in music, and numerous elective hours outside the department permit considerable

study in other academic areas. The B.M. degree affords the student a more concentrated course of study in the major area: approximately two thirds of the four year program is in music. The B.M. degree is especially appropriate for students who plan a career teaching public school music. It combines general education with music content and teaching methodology in a highly structured course of study. Successful completion of the program gains the student public school teaching certification. All three degree programs represent appropriate preparation for graduate study.

In addition to University admission standards, prospective ' music majors will stand ah audition in their primary performing area which will determine the appropriate applied music course level and degree program. All music majors are required to participate in an ensemble for each semester of residence, and must accumulate a minimum of eight hours credit (seven hours for music education majors). For all music majors, a 2.0 average in music courses is required for enrollment in *2* 00 and 400 level music courses. A senior educational experieno: is required of all majors.

In addition to degree requirements herein listed, other regulations for music majors appear in the current *Music* Student *Handbook.*

The following are suggested courses of study for the several degrees in music. Specific course requirements are listed by course number; general education category requirements are indicated by category only. Elective courses ot \er than those included in general education requirements indicated as "elective." Appropriate music ensemble requirements are indicated only as "ensemble" in the courses of study. Applied Music Study is indicated only as "Applied Music;" specific course numbers are determined according to l^vel of study and specific instruments studied.

An ensemble is defined as any group of two or more performers, including a soloist and an accompanist Large ensembles include Marching Band, Concert Band, Univeristy Orchestra, Chattanoga Singers, Chamber Sinj;lers, and Opera Workshop.

Music (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations [3 hours) OR option (b) World Civilization I, 11, 111 (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, other than Music 111, one from fine arts ind one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioural or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science cc , at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 h(j>urs)
Statistics: One approved statistics course (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Foreign language through second college year
Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major

Music 103,104,107,108,203,204,207,208,311,315,316
Large ensemble participation (appropriate to the major) required each semester of residence, minimum 8 hours credit, with the exception of piano and guitar majors who may include up to 4 semesters of small ensemble participation.
8 semesters (8 hours) primary instrumental or vocal study
4 hours music electives in music history, music theory, or composition
4 hours music electives
2.6 average in all music courses
Seminar is required each semester of residence. A minimum of 8 semesters with a grade of "satisfactory" is required.
Senior Educational Experence

Minimum of 30 hours of 300 and 400 level courses
Electives to complete a minimum of 128 hours

Music (B.M.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, other than Music 111, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major

Foreign language through second college year
Core: Music 103,104,107,108, 203,204,207, 208,311,315, 316; Large ensemble participation (appropriate to the major) required each semester of residence, minimum 8 hours credit, with the exception of piano and guitar majors who may include up to 4 semesters of small ensemble participation; 4 semesters (4 hours) piano study for nonkeyboard majors. Performance majors required to present a half-recital in junior year, full recital in senior year. *

One of the following concentrations:

1. **Instrumental Performance: 8 semesters (32 hours) primary applied study, 16 hours at die 200 level and 16 hours at the 400 level; Music 303; Music 332 (for piano majors). 17-19 hours music electives other than primary applied study**
2. **Vocal Performance: 8 semesters (32 hours) voice study, 16 hours at the 200 level and 16 hours at the 400 level; Music 217, 218; 333,303. 11 hours music electives other than primary applied study**
3. **Sacred Musk: 8 semesters (24 hours) keyboard or voice study; 4 semesters (4 hours) secondary applied study in keyboard or voice; Music 302,305r (2 hours), 303,310,334,404,405,406,498r (field work). 9 hours music electives other than primary applied study**
4. **Theory and Composition: 8 semesters (8 hours) primary instrument or voice study; Music 302; 4 hours of 305r; 307;4 hours from 303,310,328; 8 hours of 401r, for students concentrating in composition, or 407,408,409, 410 for students concentrating in Music Theory. 20-21 hours music electives**

2.0 average in all music courses
Seminar is required each semester of residence. A minimum of 8 semesters with a grade of "satisfactory" is required.
Senior Educational Experence

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Music Education (B.M.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) OR option (b) World Civilization I, II, III (9 hours)
Humanities and Fine **Arts:** Two approved humanities and fine arts courses, other than Music 111, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

Psychology 221 or 222
Music 103,104,107,108,131*. 132*, 141*. 142*, 203, 204, 207, 208, 221, 303,315,316,321; Music 432
18 hours applied music including: large ensemble participation (appropriate to the major) required each semester of residence, with exception of student teaching semester, minimum of 7 hours credit (minimum of 4 semesters of chorus required for the vocal concentration); 7 semesters (7 hours) primary applied instrumental or vocal study; *Music 131, 132, 141,142 for piano proficiency (4 hours). All Music Education majors must pass a Piano Proficiency Examination as described in The Music Department *Undergraduate Student Handbook.*
Music Education majors are required to present a half-recital or full recital in the senior year. The student must be registered for die appropriate instruction course the semester of the recital.
One of the following concentrations

1. Instrumental: Music 223; 224; 225; 226; 325,328

2. Vocal Music: 135, two semesters of 307 or 326, 251r or 133 and 134, 222,310,333,334,336.

*

Seminar is required each semester of residence. A minimum of 7 semesters with a grade of "Satisfactory" is required.
22 hours from the College of Education and Applied Professional Studies including Education 201,433,444r; and EPSY 400
For graduation: 2.0 average in music and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 average cumulative, 2.5 average at UTC, 2.5, 2.5 average in education courses with no grade less than C , 2.5 in content area coursework with no grade lower than C.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 133 hours for vocal, 135 hours for instrumental
Total hours to exceed 128 minimum
See College o{ Education and Applied Professional Studies section for teacher education, licensure, and student *teaching requirements.*

MUSIC MINORS

Music Performance:
22 hours of music including a core of 14 hours: 105,106, 315,316, and 4 hours (4 semesters) of applied instruction at the 200 level or above; at least 3 of the elective hours must be at the 300 level or above with the remainder at the 200 level or above. A maximum of 2 hours of ensemble credit will be accepted. Music 107 and 108 may be substituted for 105 and 106.
Minimum 2.0 average in the minor.

Music **History:**
20 hours of music including a core of 14 hours: 105, 106,315,316, and 4 hours (4 semesters) of applied instruction; two courses from 411, 412,413, 414, **415.** Class instruction may satisfy the applied music requirement. Music 107 and 108 may be substitued for 105 and 106.
Minimum 2.0 average in the minor.

Music Composition:
23 hours of music including a core of 14 hours: 105,106, 315, 316, and 4 hours (4 semeters) of applied instruction; additional requirements to include 103, 104, 205r (1 hour), 305r (4 hours), 370r (2 hours). Class instruction may satisfy die applied music requirements. Music 107 and 108 may be substituted for 105 and 106.
Minimum 2.0 average in die minor.

PERFORMING ORGANIZATIONS

The *performing organizations mentioned below are open to* University *students with sufficient technical ability. Regular attendance at public performances and* rehearsals by the *appropriate group is required.*

020r Chattanooga Singers (1)
Study of music of alt periods for large mixed chorus. Rehearsal and extensive performance experience emphasized. Performances in Chattanooga and throughout the world. Every semester. Prerequisite: audition.

022r Chamber Singers (1)
Study of repertoire for small choruses through rehearsal and performance. Every semester. Prerequisite: *audition.*

025r Singing Mocs (1)
Study of styles and techniques appropriate to the performance of music in the popular idiom. Every semester. Prerequisite: audition.

030r Marching Band (1)
Study of marching band functions and literature through performances at University athletic and other events which could appropriately utilize the participation of a marching musical group. Fall semester. Prerequisite: *audition.*

031r Concert Band (1)
Reading, rehearsing, and performing contemporary and traditional band literature. Laboratory organization for instrumental conducting and band arranging classes. Spring semester. Prerequisite: *audition.*

035r Wind Ensemble (1)
A select ensemble which rehearses and performs literature for larger Wind Ensembles of all periods with emphasis on music of the 20th century. On demand. Prerequisite: audition.

036r Jazz Band (1)
Study of types of styles of big band jazz. Emphasis on sight reading, improvisation, and performance. Every semester. Prerequisite: *audition.*

040r Opera Workshop (1)
Study of and practical experience in preparation and performance of operas and opera scenes. Attention to requirements of various style periods. Emphasis of development of musical and dramatic skills and stagecraft techniques. Every semester. *Prerequisite: audition.*

050r University Orchestra (1)
Rehearsal and performance of selected works from the symphonic repertoire from 1700 to the present. Every semester. Prerequisite: *audition.*

053r Cadek Community Orchestra (1)
Development of basic skills in performance while exploring music literature from various stylistic periods. Provides opportunities for inexperienced players to develop greater proficiency in a non-competitive atmosphere. Every semester. For *musk majors,* no more than 2 *hours credit will be counted toward degree requirement.*

06 lr Percussion Ensemble (1)
Accompanying, chamber, and other ensemble music. On demand.

MUSIC COURSES

100r Seminar (0)
Every semester.

103, 104 Ear Training I (1,1)
Studies in sight singing and dictation. Interval, melody, icounterpoint, diatonic, and chromatic harmonic materials. 103 fall/104 spring s :r. Class hours 2. *Prerequisite:* 105 *or placement; 103 is prerequisite to* 104.

105 Elements of Notation, Dictation, and Sight Singing (2)
Fundamentals of music theory. Designed for those taking music theory without previous experience and as the first course in music theory for music minors. Fall semester. *May not be included as a music elective for ic majors.*

106 Conceptual Overview of Music Theory (2)
An elements-based approach to the analysis of music frori l a broad spectrum of styles, genres, and historical periods. A continuation of Music 105 for music minors. Spring semester. Prerequisite: *Music 105.*

107,108 Theory I (3,3)
A comprehensive approach to the study of melody, counterpoint, diatonic and chromatic harmony, basic instrumentation and aural skillsi. Performance, composition, and analysis of music from all periods and sitylies. 107 fall/108 spring semester. Prerequisite: *105 or placement examinatior. Music* 103 *corequisite to Music 107/Music 104 corequisite to Music 108.* Music 107 *prerequisite* to *Music 108. Class hours 4-*

110 Music Literature for Children (3)
Study of music for children; fundamentals of the musical language and basic concepts of music. Repertoire selected from a broad range of styles and media. On demand.

111 Introduction to Music (3)
Designed to promote awareness of western art music as a mode of communication and a major component of western cultu re, this course will examine styles, significant works and prominent musicians in an historical context. The relationships among political, religious, sci< ntific and philosophical issues and styles in western music will be considered.

121 Piano Class (1)
For persons without keyboard or music reading experience. Every semester. Class *hours 2.*

131, 132 Piano Class (1,1)
For persons without keyboard experience. 131 fall/132 spring. Class *hours 2. 131 prerequisite to 132.*

133, 134 Voice Class (1,1)
For persons without vocal experience. 133 fall/134 spring semester. Class *hours 2. 133 prerequisite to 134.*

135, 136 Guitar Class (1,1)
For persons without guitar experience. An introduction to the technique and classical literature of the guitar. 135 fall/136 spring semes|ter. Class *hours 2.* 135 prerequisite to 136.

141, 142 Piano Class (1,1)
141 fall/142 spring. Classhours 2. Prerequisite: 132or *audition; 141 prerequisite to 142.*

151 r Applied Music Instruction (1)
Individual instruction for students with limited applied music experience. Four hours practice required each week. May not be accepted is applied credit for • any music degree program or Performance Music Minor. Every semester. *Prerequisite-.audition.*

153r Applied Music Instruction (1)
individual instruction for students with limited applied i ic experience. Four hours practice required each week. May not be accepted is applied credit for any music degree program or Performance Music Minor. Every semester. Prerequisite .-audition.

157r Applied Music Instruction (1)
Individual instruction for students with limited applied music experience. Four hours practice required each week. May not be accepted as applied credit for any music degree program or Performance Music Minor. Every semester. Prerequisite.•audition.

159r Applied Music Instruction (1)
Individual instruction for students with limited applied music experience. Four hours practice required each week. May not be accepted as applied credit for any music degree program or Performance Music Minor. Every semester. Prerequisite .audition.

161 r Applied Music Instruction (1)
Individual instruction for students with limited applied music experience. Four hours practice required each week. May not be actepted as'applied credit for any music degree program or Performance Music Minor. Every semester. Prerequisite .-audition.

199r Special Projects (1-4)
Individual or group'projects. On demand. *Maximum credit 4 hours.*

200r Seminar (0)
Every semester.

201r Ensemble (1)
Accompanying, chamber, and other ensemble music. On demand.

203, 204 Ear Training II (1,1)
Continued studies in sight singing and dictation. Aural structural analysis, advanced melodic and harmonic studies, twentieth century techniques. 203 fall/204 spring semester. Class *hours 2. Prerequisite: 104; 203 is prerequisite to 204.*

205r Fundamentals of Music Composition (1)
Basic skills of music composition designed to prepare promising lower division students for advanced study. Analysts focusing on applied compositional skills. Modeled composition. Spring semester. Prerequisite: *Music 107 or* permission *of* instructor.

207, 208 Theory II (3,3)
A comprehensive approach to the study of musical structure. Continued study of melody, harmony, counterpoint, and aural skills. Introduction to 20th century compositional techniques. Performance, composition, and analysis. 207 fall/208 spring semester. Class *hours 4. Prerequisite: 108; corequisite: 203 corequisite to 207, 204 corequisite to 208.* v

209, 210 Keyboard Harmony (1,1)
The use of harmonic materials at the keyboard. 209 fall/210 spring. 209 prerequisite to 210.

212 America's Musical Heritage (3)
An historical study of musical development in the United States from the Colonial period to the emergence of the native American composer and performer of distinction in the 20th century. On demand.

213 A History of Rock (3)
A consideration of the history of rock music in a social context. Fall semester only. Prerequisite: Music 111 *or University* Honors 103; open to *music majors.*

217, 218 Diction for Singers (2,2)
An introduction to the pronunciation of Italian, German, French, and English based on the International Phonetic Alphabet. 217 fall/218 spring semester alternate years. Open to *voice majors; others by permission.*

221 String Methods (2)
Class instruction of string instruments: tuning and care of instruments; teaching techniques. Violin, viola, cello, and double bass; Fall semester. Class 2 *hours, laboratory 1 hour.*

222 Instrumental Methods for Vocal Music Education Majors (2)
Class instruction of woodwinds, brass, and percussion instruments; tuning and care of instruments; teaching techniques. Flute, single, and double reed instruments; trombone, horn, and piston valve instruments; drum and mallet instruments. Spring semester. *Class 2 hours, laboratory I hour. Prerequisite: Vocal Music Education Major status.*

223 Woodwind Methods (2)
Class instruction of woodwind instruments; tuning and care of instruments. Teaching techniques. Single reed instruments, double reed instruments, and flute. Fall semester. Class 2 hour, laboratory I hour.

224 Brass Methods (2)
Class instruction of brass instruments; tuning and care of instruments. Teaching techniques. Piston valve instruments, horn, and trombone. Spring semester. Class 2 hour, laboratory J hour.

225 Percussion Methods (2)
Class instruction of percussion instruments; tuning and care of instruments; teaching techniques. Spring semester. Class 2 hour, *laboratory I hour.*

226 Marching Band Techniques (2)
A study of the techniques and style employed in training the marching band. Fall semester.

23Or Orchestra Literature for Elementary and Secondary School Students (1)
A survey of literature available for teaching orchestral music to students from elementary through secondary levels. On demand. *Class hours 2. Prerequisite: 108 or* **persmission** *of the instructor. Only one hour credit may apply* **to** *a degree.*

231 r Wind and Percussion Literature for Elementary and Secondary Students (1)
A survey of music literature available for teaching wind and percussion instruments to students from elementary through the twelfth grade. On demand. Class hours 2. Prerequisite: 108 or *permission of instructor. Only one hour credit may apply to degree.*

232r Choral Literature for Elementary and Secondary School Students (1)
A survey of literature for choral ensembles from elementary through secondary **levels. On demand. Class** *hours 2. Prerequisite: 108 or persmission of the instructor. Only one hour credit may apply to a degree.*

251 r Keyboard Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. ***Prerequisite:*** **audition.**

253r String Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. ***Prerequisite: audition.***

255r Voice Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. Prerequisite: *audition.*

257r Woodwind Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. ***Prerequisite: audition.***

259r Brass Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. Prerequisite: *audition.*

261r Percussion Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. Prerequisite: audition.

300r Seminar (0)
Every semester.

302 Counterpoint (2)
An analytical survey of contrapuntal techniques. Spring semester alternate years. Prerequisite: 108, *or permission.*

303 Basic Conducting (2)
Techniques of the baton, basic score reading and transposition, fundamentals of **conducting. Fall semester.** ***Prerequisite: Music 207, 208.***

304 Arranging and Composing for Percussion Instruments (1)
Aspects of composing and arranging peculiar to instruments of the percussion family. Nature of sound as related to specific available instruments, technical problems, and notation practice. Investigation of percussion instruments in combination with other instruments, solo contexts, and in ensembles composed entirely of percussion instruments. On demand. Prerequisite: *208 and permission of* instructor.

305r Composition (1-4)
Beginning composition study concentrating on small groups and short forms. Every semester. Prerequisites: 208.

307 Orchestration (2)
Scoring for strings woodwinds, brasses and full orchestra. Piano transcriptions from orchestral scores. Fall semester alternate years. *Prerequisite: 208.*

310 Choral Conducting (2)
Designed to teach the student to train choral groups, read choral scores, and conduct effective rehearsals; basic patterns for choral and orchestral conducting, interpretation and building of repertoire of both secular and sacred choral composi tions. Actual conducting of works of all periods with and without instrumental accompaniment. Spring semester. *iOi prerequisite to 310.* ***Prerequisites: 207, 208.***

311 Musics of the World (3)
An introduction to the folk and ethnic music of various world cultures. Consideration of how musical styles relate to social, cultural and aesthetic practices and attitudes. Papers, projects. May be registered as Anthropology 311 or Humanities 311. Spring semester only. Prerequisite: Western Humanities 1.

315, 316 History of Music (3, 3)
A general survey of the history of music in western civilization. 315 fall/316 spring semester. Prerequisite: 106 or J08.

317 Survey of Jazz (3)
A introductory survey course in jazz from its ethnic origins, through its chronological development, to its current styles. Emphasis placed on the relationship of the music to the individuals who create this form of human expression. Every semester. *Prerequisite:* English J *22*

321 Elementary School Music Methods, Materials, and Observation (3)
A study of music teaching-learning methods and strategies. Basic concepts of musical organization, musical skills, and literature for the classroom. Fall semester. Prerequisite: *Piano Proficiency Exam*

322 Music Education in Early Childhood (3)
Methods and materials designed to involve the infant and young child in musical experiences as an outgrowth of play. Developmental paths to music making and learning explored through informal and formal settings. Activities including music and movement, rhythmic speech, song, imitation and improvisation, music-drama, and music pictures. On demand.

325 Band Organization and Management (2)
The techniques used in the organization, administration, and preparation of school bands. The selection, care, and repair of materials, instruments, and other equipment. Fall semester.

326 Band Arranging (2)
Band instrumentation and general principles of arranging; special reference to writing for bands having incomplete instrumentation and less experienced players. Spring semester.

328 Instrumental Conducting (2,2)
First semester: includes techniques of the baton; basic score reading; fundamentals of conducting. Second semester: includes style, nuances, musical interpretations, advanced score reading, and actual band conducting. Spring **semester.** ***Prerequisites: 207,*** **208,** ***303.***

332 Piano Pedagogy (2)
Piano methods and materials. For advanced students planning to teach piano. Fall semester alternate years.

333 Vocal Pedagogy (2)
A comparative study of the major concepts in current voc il training for soloist, choral group, and voice class; analysis of corrective procedure for vocal problems; elementary study of vocal anatomy, vocal acoustics, and the psychology of singing. Fall semester.

334 Choral Arranging (2)
The study of the methods, materials, techniques of arranging and adapting choral music for elementary, secondary, and adult voices with attention to vocal ranges, score arrangement, developmental and psychological considerations, and musical style. *Prerequisite: Musk 207, 208.*

336 Choral Methods (2)
A study of techniques used in the recruiting, training and adminstration of secondary school choral esembles. Special emphasis on choosing literature appropriate for musical growth and vocal development in young singers. Prerequsite: Music 303.

340 Music for Children (1)
Introduction of discipline based music education concepts for implementation by teachers of children, pre K through grade 6. Every semesters. Prerequisites: **ThSp *I15*, PSY*221* or HECO 241, *Music 111, An301; Correquisites:* THSP** *340,* An 340.

370r Electronic Music (2)
An introduction to and continuing experience with the aesthetics, analysis, and composition of electronic music. Tape recorder terminol ogy; tape manipulation techniques; synthesizer technique; electronics; acoustics; composition and analysis. For music majors. Spring semester. *Prerequisite: 132,* ***208, or permission.***

397 Music, the Arts, and Ideas (3)
A comparison of musics and musical values in Africa, Indonesia, India, Europe, and among various indigenous peoples; an exploration of the role of art in various societies and other aesthetic issues relating to the arts. Essay exams, papers. May be registered as Humanities 397.

400r Seminar (0)
Every semester.

40 lr Composition 11 (1-4)
Advanced composition study. Every semester. Prerequisites: *305, 307.*

404 Liturgies and Service Structure (2)
History, content, theology of worship; similarities in Jewish and Christian worship and liturgy; application of liturgical principles to various types of worship service; service playing. On demand. Open *to music majors; others by* ***permission.***

405 Ministry of Music (2)
Philosophy of music in the church; the role of music in worship; the organization of a church music program; staff relations. On demand. Open *to* ***musk majors; others by* permission.**

406 Hymnology (2)
Historical development of the Christian hymn; criteria for use of hymns and hymn tunes; the composition of hymns. On demand. Open to *musk majors;* ***others* by *permission.***

407, 408 Advanced Analysis (2,2)
Compositional, analytic techniques, and formal procedures, with emphasis on the 20th century. 407 fall/408 spring semester alternate years. Prerequisite: 208 or permission *of* instructor; *407 prerequisite to 408.*

409, 410 Musical Styles (2,2)
Literature of the various periods of music history, including characteristic features of musical style. 409 fall/410 spring alternate years. Prerequisite: ***permission of* instructor.**

411 Music Before 1600 (3)
A study of works, both monodic and polyphonic, characteristic of European music before 1600. On demand. *Prerequisites: 208 or* permission *of* instructor.

412 Music from 1600 to 1750 (3)
A study of works characteristic of the period and illustrative of musical trends in the era. On demand. *Prerequisites: 208 or* permission *of* instructor.

413 Music from 1725 to 1825 (3)
A study of works characteristic of the period and illustrative of musical trends in the era. Extensive examination of representative scores. On demand. Prerequisites: 208 or permission o/instructor.

414 Nineteenth Century Music (3)
A study of works characteristic of the period and illustrative of musical trends in the era. On demand. Prerequisites: 208 or permission o/instructor.

415 Twentieth-Century Music (3)
A study of works characteristic of the period and illustrative of musical trends in the era. On demand. Prerequisites: 208 or permission *of* instructor.

426 Jazz Arranging (2)
Fundamentals of composing and arranging for the contemporary jazz ensemble. **On demand. Prerequisites: 208, *307 or 326, or permission of instructor:***

432 Teaching Strategies and Evaluation in Secondary School Music (3)
Theories and practices in secondary school music, attention to the exceptional student, curricular developments in music education, evaluation procedures appropriate to music education. Fall semester. Prerequisite: admission to teacher **education program. *May not be used for graduate credit.***

451r Keyboard Instruction (1-4)
Four hours per week practice required for each hour credit. Every semester. **Prerequisite: *16 hours of25lr and successful audition for the division jury.***

453r String Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. **Prerequisite: 16 *hours of 253r and successful* audition *for the division jury.***

455r Voice **Instruction (1-4)**
Four hours practice per week required for each hour credit. Every semester. **Prerequisite: 16 *hours of 255r and successful* audition *for the division jury.***

45 7r Woodwind Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. **Prerequisite: 16 *hours of 257r and successful audition for the* division jury.**

459r Brass Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. **Prerequisite: 16 hours o/259r and *successful audition for the division jury.,***

461r Percussion Instruction (1-4)
Four hours practice per week required for each hour credit. Every semester. **Prerequisite: 16 *hours of261rand successful audition for the division jury.***

495r Departmental Honors (1-3 hours **per term,** 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Nursing

See College of Health and* Human Services, School *of Nursing.

Philosophy and Religion

Professor Burhenn, *Head*

The Department of Philosophy and Religion offers a 30-hour undergraduate major (B.A.) with separate concentrations in philosophy, religious studies, and philosophy and religion; and an 18-hour minor with separate concentrations in philosophy and religious studies. Through its curricular and extracurricular programs the department seeks to expose the student to a wide variety of influential philosophical and religious thinkers in both Western and non-Western cultures.

The department sponsors a student organization, the Philosophy Club, which schedules a program of speakers diroughout die year.

Each discipline of philosophy and of religion is regarded separately in applying the 42-hour limit in any one department for the B.A.

Philosophy and Religion (B.A.): Philosophy, Religious Studies, Combined Concentrations

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: Completion of intensive writing requirement within majot
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) *and* Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities (other than Philosophy and Religion) and fine arts courses, one from fine arts and one from either (6 hours) *
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Foreign language through second college year (Department recommends Greek, Latin, German, or French)

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major

One of the following concentrations
1. Philosophy:
30 hours philosophy beyond 100 level including Philosophy 211, 351, 353, 498r; one course in ethics, metaphysics, or epistemology
2.0 average in all philosophy courses

2. Religious Studies:
Total of 30 hours including Philosophy 351 and 353; Philosophy 498r or Religion 498r; and also including 21 hours religion with two courses chosen from each of the following groups:
1. Religion 211,313, 314,320,321, 322,417,493r
2. Religion 318,334, 337,351,362,467,484,492r
2.0 average in all philosophy and religion courses

3. Combined:
Total of 30 hours
15 hours philosophy beyond 100 level including 351, 353,498r
15 hours religion including two courses from 318,334,337,351,362,467, 484,492r
2.0 average in all philosophy and religion courses

(Religion 103 may be counted toward religious studies and combined concentrations, and one course outside the department may count toward major with any concentration if approved by department head.)
All majors in Philosophy and Religion are required to complete a senior project under the supervision of a member of the faculty. Students register for this project by taking at least three hours of Philosophy 498r or Religion 498r. Completion of a Departmental Honors project will also satisfy this requirement.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

PHILOSOPHY AND RELIGION MINORS

One of the following concentrations
1. Philosophy:
18 hours of philosophy beyond 100 level including Philosophy 211,351,353; 9 of these hours must be earned in courses at 300 level or above.
Minimum 2.0 average in the minor.

2. Religious Studies:
Total of 18 hours including Philosophy 333 or 353 and 15 hours religion, with at least one course from each of the following groups:
Religion 211, 313,314,320, 321,322,417,493r
Religion 318, 334,337,351, 362,467,484,492r
Nine of the 18 hours must be earned in courses at 300 level or above.
Minimum 2.0 average in the minor.

PHILOSOPHY COURSES

106 Philosophy and Human Nature (3)
Interpretations of human nature and analyses of the human condition from Plato to Russell and others in the 20th century. Lectures and discussions aimed at clarification of present meanings and values. Every semester.

113 Western Humanities 1 (3)
An historical approach to the pivotal ideas, systems of thought, and creations of the Western world from antiquity to approximately 1600 C.E. Emphasis on philosophical and religious themes. *Co-requisite: English 121.*

115 Western Humanities II (3)
An historical appproach to the pivotal ideas, systems of thought, and creations of the Western world from approximately 1600 C.E. to the present. Emphasis on philosophical and religious themes. Pre-reauisite: English 121. Co-requisite: English *122.*

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum credit *4 hours.*

201 Introduction to Philosophy (3)
An approach to the discipline through the perennial and changing issues of the field: freedom and determinism, the real and our knowledge of it, cosmological ideas, God, meaning, and moral values. Every semester.

211 Logic, Language, and Evidence (3)
An examination of accepted forms of reasoning and of the varied ways in which language functions; fallacy, definition, metaphor, and theories of meaning; examples from such areas as science, law, politics, theology, and philosophy; classical and symbolic logic; deductive techniques; induction and deduction contrasted. Fall semester.

221 Introduction to Ethics (3)
An examination of classical and modern theories of the foundations of morality. Selections from such philosophers as Plato, Aristotle, Hobbes, Butler, Hume, Kant, Bentham, Sidgwick, and Mill. Every semester.

322 Ethical Theory (3)
A critical analysis of contemporary ethical theories. Emphasis on the writings of philosophers such as Moore, Stevenson, Dewey, Rawls, Baier, Hare, and Searle. Alternate years.

333 Philosophy of Religion (3)
A philosophical examination of religion, including traditional and modern arguments for the existence and nature of God, the nature of religious . experience and belief, and the functions of religious language. Alternate years.

336 Aesthetics (3)
A study of the nature and value of art, of human creativity, and of aesthetic response. Close attention to theoretical analysis and to the interpretation and **critique of important artistic achievements. On demand.**

341 Metaphysics (3)
A study of classical and contemporary approaches to the question of what is ultimately real; consideration of modern challenges to the legitimacy of metaphysics. Alternate years.

345 Epistemology (3)
A critical examination of the nature of knowledge and the philosophical problems concerning skepticism; knowledge of the self, material objects, other minds; the past, present, and future; universal and necessary truth. Selections from both historical and recent writings. Alternate years.

348 Philosophy of Science (3)
An introduction to philosophical problems in the natural and social sciences: the nature of explanation, induction, evidence, probability, verification, causation; the role of observation; the relations among the sciences. Spring semester alternate years.

351 History of Ancient Philosophy (3)
Selections from the pre-Socratics through the late Greco-Roman writers, including Plotinus. Emphasis on Plato and Aristotle. Fall semester.

353 History of Modern Philosophy (3)
Rationalism and empiricism as developed by leading thinkers; selections from chief representatives from Hobbe^ and Descartes through Kant. Spring **semester.**

360 American Philosophy (3)
Earlier American thought in its reaction to European movements; the emergence of a genuinely American philosophy. Emphasis on James, Pierce, Santayana, Royce, Dewey, and Whitehead. Alternate years.

364 Existentialism and Phenomenology (3)
Presentations on the major figures and themes of this movement; discussions of **selected passages from Kierkegaard, Nietzsche, Husserl, Heidegger, Sartre, and Ricoeur. Alternate years.**

425 Ethics and the Professions (3)
An examination of ethical issues and principles related to problems and standards in the professions. Special attention to professional codes and case **studies in relation to traditional and contemporary moral philosophy. Designed as a general course for students not majoring in philosophy and religion. Fall semester.**

442 Philosophy of Mind (3)
A history of the philosophy of mind, from Aristotle and Descartes through the twentieth century. Emphasis on current debates, with reference to relevant scientific discoveries. Alternate years.

481r Interdisciplinary Seminar (3)
Critical inquiry into the most comprehensive questions raised by particular disciplines; reading and discussion of significant primary sources from scholars in the special field and philosophers. Two faculty members. On demand.

483 Feminist Theory (3)
A history of feminist theory from the eighteenth century to the present. Extensive reading, papers. Maybe registered as Humanities 483. Credit hot allowed in both Humanities 483 and Philosophy 483.

491r Studies in Philosophy (3)
A seminar or **tutorial** for the intensive consideration of one philosophical prohlem, movement, or figure. On demand.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. *See "Departmental* Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
Must be taken for at least three hours in one semester by all majors. Every semester.

499r Group Studies (1-4)
On demand.

RELIGION COURSES

103 Introduction to the Study of Religion (3)
Consideration of the various elements of religion and the methods for studying them; attention to beliefs, world-views, and sacred literature; rituals, myths, symbols; religious communities and organizations; types of religious experience. Every semester. ^

110 Introduction to Western Religions (3)
An introduction to the major religious traditions emerging in Western cultures, with emphasis on Judaism, Christianity, and Islam.

199r Special Projects (1-4)
Individual or group projects. On demand. *Maximum credit 4 hours.*

210 Western Christianity Since 1000 (3)
See History 210.

211 Religions of the East (3)
An introduction to major world religious traditions of Asia, with emphasis on Hinduism, Buddhism, and Confucianism. Every semester. Prerequisite: Western Humanities I or Western Civilization /

213 A History of Judaism (3)
Examination of enduring themes or concepts in Jewish tradition from antiquity to the modern era. Particular attention to the emergence of normative **Judaism** and its later challengers: Hasidism, Reform, and Zionism. Fall semester.

221, 222 Biblical Literature (3,3)
First semester: the Old Testament and the history and religion of Israel against the background of the ancient Near East. Second semester: the New Testament documents in relation to Judaism and the environment of the Hellenistic **world. 221 fall/222** spring semester.

236 Religion in American Life (3)
Attention to distinctly American phenomena, with the intention qf assessing the present role and status of religion; consideration of such topics as separation of church and state, revivalism, the influence of immigration, sects, and cults. **Fall semester.**

313 Religion in the Middle East (3)
A study of non-Christian religions originating in the Middle East with **particular attention** to Islam as influenced by Zoroastrianism and Judaism. Alternate years.

314 Primitive Religion (3)
The place of **religion** in the social and cultural settings of selected peoples as evidenced through magic, myth, totemism, fetish, sacrifice, shamanism, and initiatory rites; an attempt to delineate the common elements of primitive religion. On demand.

318 Modern Judaism (3)
Exploration of religious, social, and political developments in modern Judaism, including the appearance of Zionism, the impact of the Holocaust, and efforts to overcome **the tension** between Zionism and the religious **culture** of **contemporary Jews. Alternate** years.

320 Religions of India (3)
Examination of the conceptual and historical development of religions on the Indian subcontinent. Attention will also be paid to the interaction among religions of India and their relationships to Indian culture. Alternate years.

321 Religions of China (3)
Examination of the conceptual and historical development of religions in China. Attention will also be paid to the interaction among religions of China, the impact of Indian religions and culture on China, and the relationship of ' religion to Chinese culture. Alternate years.

322 Religions of Japan (3)
Examination of the conceptual and historical development of religions in Japan. Attention will also be paid to the interaction among religions of Japan, the impact of continental Asian religions and culture on Japan, and the T relationships of religion to Japanese culture. Alternate years.

334 Religion in Southern Culture (3)
Examination of the role of religion in Southern culture, past and present. Attention to the evangelical influence, African-American religion, mountain religion, Southern-based sects, the Pentecostal experience, and the cultural impact of religion in the South. Alternate years.

337 Interpretations of Religion (3)
An examination of ways in which religious belief and practice may be understood; sympathetic and opposing views drawn from several fields and represented by such authors as Feuerbach, Freud, James, Malinowski, Berger, Levi-Strauss, Yinger, Fromm, and N.O. Brown. Alternate years.

351 Early Christian Thought (3)
The development of central issues in Christian thought in the first millennium, with an emphasis on how these emerged from a historical context as responses both to the demands of faith and to the social and intellectual concerns of the time. Consideration of such figures as Tertullian, Arius, Augustine, Gregory the Great, and Bede. Alternate years.

362 Modern Christian Thought (3)
Selected movements and figures that have shaped the Christian theological tradition in the nineteenth and twentieth centuries. Alternate years.

417 Mysticism East and West (3)
The place of mysticism in the Eastern and Western religious traditions; discussion of the writings of major historical and contemporary mystics. On demand.

467 Contemporary Religious Issues (3)
Analysis of selected issues, such as church-state relations, fundamentalism, and debates over abortion, that are central to contemporary religious life. Primary attention to the American scene and some cross-cultural comparisons. Alternate years.

470 Psychology of Religion (3)
Analysis of empirical data and psychological theories involving religious beliefs, practices, and experiences. Every semester. *Prerequisites:* 6 *units psychology or philosophy-religion. May be registered as Psychology 470.*

484 Holocaust and Genocide (3)
Examination of the Holocaust, the state-sponsored effort of the Nazi regime to destroy the Jewish people between 1933 and 1945, and the relationship between the Holocaust and the more general category of genocide. Consideration of the causes of genocide and the Holocaust and their persistent presence in contemporary society. Alternate years.

491r Studies in Religion (3)
A seminar or tutorial for the intensive consideration of one problem, movement, or figure in the field of religion. On demand.

492r Studies in Western Religious Thought (3)
A seminar or tutorial for the intensive consideration of one problem, movement, or figure in Western religious thought. On demand.

493r Studies in the History of Religions (3)
A seminar or tutorial for the intensive consideration of one problem, movement, or figure in the history of religions. On demand.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
Must be taken for at least 3 hours in one semester by all majors. Every semester.

499r Group Studies (1-4)
On demand.

Physics, Geology, and Astronomy

Professor Churnet, *Head*

The Department of Physics, Geology, and Astronomy offers two degree programs for its majors: the B.S. in physics, and the B.S. in geology. The department also contributes to programs leading to degrees in other sciences, engineering, and preprofessional areas. In addition, the department offers minors in geology, physics, and health physics.

The geology program emphasizes hands-on experience. Many courses are supported by field examination of regional exposures of sedimentary, metamorphic, and igneous rocks.

The geology curriculum is designed to train students to pursue graduate degrees or enter the work force, particularly in the area of environmental geology.

As a fundamental science, physics is required for the education of students in many disciplines. The physics program emphasizes mathematics, but to accommodate students in less quantitative disciplines the department also offers introductory algebra-based physics. Physics majors are qualified to seek opportunities in graduate school, education, government, and industrial research.

The astronomy program is augmented by specialized equipment for astrophotography. The off-campus UTC Clarence T. Jones Observatory provides astronomy presentations to the community at large.

The department offers several introductory courses which fulfill the natural science requirement. Physics 103 & 183, 230 &. 280, Geology 111 & 181, General Science 111 & 181, and Astronomy 102 & 182 all contain a strong laboratory emphasis, and are excellent choices to increase one's appreciation of nature and the physical universe.

Geology (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: English 278 (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)arui Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours; approved related courses below will apply)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

Geology 111 & 181,112 & 182, 241, 242,303,451,480,490
Any two of the following sequences: Biology 121-122, Chemistry 121-122, Physics 103 &. 183,104 or Physics 230-231
Recommended: Astronomy 101 or 102 & 182, Environmental Science 150, Math 161 & 162, Physics 230 & 280, 231, 232 and Chemistry 341,351
2.0 average in alt geology courses .
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Each geology major must also complete the requirements for either the Geology option or the Environmental Geology option:
Geology option: Geology 321, 452, plus 7 hours of geology electives, including at least one course at the 400-level; Mathematics 151/152.
Environmental Geology option: Geology 123,445, plus 8 hours of geology electives, including at least one course at the 400-level; Mathematics 136[2] or 151/152.

Field work
Geology majors are encouraged to enroll in a field geology course (field camp) during the summer following the junior or senior year. In the latter case, graduation will be postponed until August and the requirement that the last 30 hours be completed at UTC will be waived. It is still required, however, that at least 30 hours be completed at UTC.

Graduate study **preparation**
Most graduate schools in geology require a minimum of 1 year of calculus, 1 year of calculus-based physics, and a good background in courses from biology, chemistry, and computer science, and a geology field camp. Therefore, students intending to pursue a graduate degree in geology should take those courses (beyond UTC's major requirements) that will best prepare them for the graduate program of their choice. It is strongly recommended that the prospective graduate student also take Geology 497r.

Mathematics 106,**144,** and 145 may be recommended to precede Mathematics 151/152, depending on preparation of the individual student. Students taking the Environmental Geology option may substitute Mathematics 136 for Mathematics 151/152.
Mathematics 106 and 131 may be recommended to precede Mathematics 136, depending on the preparation of the individual student.
Take any two of the following sequences: Biology 121-122; Chemistry 121-122; Physics 103-104 (or Physics 230-231)
The Environmental Geology option requires Geology 123 in place of Geology 321
The Environmental Geology option requires Geology 455 in place of Geology 452

GEOLOGY MINOR

18 hours of geology including 111 & 181,112 & 182, and 407. At least 8 hours 300 level or above.
Minimum 2.0 average in all geology courses.

GEOLOGY COURSES

100 **Earth** Science **(4)**
Interdisciplinary overview of the planet Earth, including the origin and evolution of its physical features, the role of modern technology in refining plate tectonic theory, and a look toward Earth's future. On demand. *Lecture* 3 ***hours, laboratory 2 hours.***

108 Geomorphology (3)
Scientific account of the general configuration of Earth's surface and the evolution of land forms. On demand. Lecture 3 hours.

111 Physical Geology (3)
Introduction to geology with emphasis on the origin of Earth, geological materials (minerals, rocks), geological process and events (mountain building, erosion, earthquakes, volcanic activity) and geological features (oceans, landformes). Field trips. Every semester. *Prerequisite: math placement level 20 or* **Mathmetics** ***106. Corequisite:*** **Geology 181** ***laboratory, or permission of the head of the department.***

112 Historical Geology (3)
Geologic history of Earth, with emphasis on geologic time and the evolution of life as gleaned from the fossil record. Field trips. Every semester. *Prerequisite: Geology* 111 or permission *of the instructor. Co-requisite:* Geology 182 laboratory, **or** ***permission of the head of the department.***

123 Environmental Geology (4)
Natural, mining, and industry-related environmental hazards, including interactions of water, rock, and air, and the attempts of humanity to remedy **these problems. On demand.** ***Lecture 3 hours, laboratory I hour.***

181 Physical Geology Laboratory (1)
Laboratory to accompany Geology 111. Laboratory studies of minerals and rocks, topographic and geologic process and events. Two hours per week. Corequisite: Geology 1II or permission *of department head.*

182 Historic Geology Laboratory (1)
Laboratory to accompany Geology 112. Laboratory studies of rocks, geologic maps and geologic structures, stratigraphic data sets, selected fossil and recent specimens of major taxonomic groups of organisms. Every semester. Two hours **per week. Corequisite: Geology** ***112, or permission of the head of the department.***

199r Special Projects (1-4)
Individual or group projects. On demand. Prerequisites: receipt *of an acceptable* ***proposal, and permission of the*** **instructor** ***and department head. Graded on a satisfactorylno credit basis.*** **Cumulative limit** ***of 4 hours.***

225 Oceanography (3)
Study of the oceans, including chemical and physical properties of sea water, patterns of sea-water circulation, life zones, origin and physiography of ocean basins, and mineral and energy resources of the oceans. On demand. Lecture *3* ***hours. May be registered as Environmental Science 225.***

226 Oceanography Laboratory (1)
Laboratory exercises in oceanography. On demand. Corequisite: Geology *225.*

241 Mineralogy (4)
Crystallography, descriptive and determinative mineralogy, mineral chemistry, and methods of chemical analysis. Fall semester. *Lecture 3 hours, laboratory 3* ***hours. Prerequisites:*** **Geolgoy III** ***& 181, Chemistry 121.*** **Formerly Geology 341.**

242 Petrology (4)
In-depth study of igneous and metamorphic rocks, including classification, genesis, and evolution. Field trips. Spring semester. *Lecture 3 hours,* laboratory 3 hours. *Prerequisite:* Geology 241. Formerly Geology *342.*

303 Sedimentary Rocks and Stratigraphy (4)
Sedimentary rocks and stratigraphic correlation with emphasis on the classic stratigraphy of eastern North America, the facies concept, and paleogeographic reconstruction of the continents. Field trips. Fall semester, alternate years. ***Lecture 3 hours,*** **laboratory 3 hours.** ***Prerequisite: Geology 112. & 182.***

307 Geology of Tennessee (3)
Geologic resources, structure, and history of Tennessee and adjacent areas. **Lecture and field trips. On demand.** ***Prerequisite: a previous course in geology.***

321 Paleontology (4)
Study of animals that are preserved in the fossil record, particularly taxonomy and population, interpretation of faunal assemblages, and the concept of biostratigraphy. Laboratory exercises emphasize morphology and time ranges of major fossil groups. Field trips. Spring semester, alternate years. *Lecture 3 hours,* ***laboratory 3 hours. Prerequisite: Geology 112&182.***

330 Sedimentation (4)
Interpretation of ancient depositional environments from outcrop observations, well logs, and modern-day analogs. Extensive field work. 0[n] demand. *Lecture 3* ***hours, laboratory 3 hours. Prerequisite: Geology 303 or permission of the instructor.***

405 Principles of Geochemistry (4)
Origin, distribution, and behavior of chemical elements on Earth. Applications of chemistry to geologic problems. On demand. *Lecture 3 hours, laboratory and* ***recitation 2 hours. Prerequisites: Geology 111 & 181 and 1 year of college chemistry. Calculus level math is highly recommended.***

406 Lithology: Study of Rocks (4)
Identification and study of common rocks and their plate tectonic environments. Lecture 3 hours, laboratory 2 hours. *Prerequisite:* Consent *of instructor.*

407 The Dynamic Earth (3)
History, theory, and application of plate tectonics models to explain the dynamic character of the Earth. On demand. *Lecture* 3 hours. *Prerequisite:* Geology *III & 181 or approval of instructor.*

431 Sedimentary Petrology (3)
In -depth study of sedimentary rocks, including genesis and classification of clastic and chemical verieties. Field work. On demand. Variable lecture *and laboratory time dependent on topic.* Prerequisite; Geology *330.*

436 Fossil Fuels (3)
Stratigraphic and sedimentological study of fossil-fuel deposits and the scientific basis for fossil-fuel exploration, including interpretation of gamma-ray well logs and preparation of panel diagrams, structure contour maps and isopach maps. On demand. Prerequisite: Geology *III & 181.*

445 Hydrology (3)
Occurrence and behavior of water in die geologic environment, including drainage systems, erosional and depositional processes, causes and controls of flooding, ground-water systems, and water quality problems. Field work. On demand. Prerequisites: Geology III 6? 181; Chemistry 121.

450 Economic Geology (4)
Origin, distribution, and classification of mineral deposits found in igneous, sedimentary, and metamorphic rocks with an introduction to methods of exploration and mining. On demand. *Lecture* 3 *hours, laboratory* 3 *hours. Prerequisites: Geology 342; Chemistry 122.*

451 Structural Geology (4)
Theory and principles of rock deformation, description and classification of common geologic structures, and laboratory methods to solve structural problems. Field trips. Fall semester, alternate years. *Lecture 3 hours,* laboratory 3 hours. Prerequisite: Geology 242. Formerly Geology 351.

452 Field Methods in Structural Geology (4)
Methods of gathering data in the field and interpretation of field relationships, as necessary to geologic mapping and analysis of geologic structures. Extensive field work. Spring semester, alternate years.. *Lecture* 3 *hours* , laboratory 3 *hours. Prerequisite:* Geology 351. Formerly Geology *352.*

454 Geologic Mapping (3)
Mapping of lithology and structural features in sedimentary and crystalline rocks. Extensive field work. On demand. Prerequisites: Environmental *Science 340 or Geology 352 and permission of the* instructor. Formerly Geology *404* •

474 Water Quality Survey (3)
Concepts of water quality, including sampling methods, units of concentration, and simple analytical procedures. Concepts are augmented by field and laboratory studies of ground and surface water. Field work. On demand. *Prerequisites: Geology 111 & 181 or 123; Chemistry 121, 122; senior standing,* and permission *of the* instructor. Chemistry 351 and Geology *341 are recommended.*

480 Geology Seminar (1)
Seminar and discussion of topics of current interest in the earth sciences. Student presentations required. Spring semester. Prerequisite: Upper level or graduate standing.

490 Senior Seminar (2)
Culminating senior experience giving students an opportunity to design and conduct research related to geologic problems. Spring semester. Prerequisites: Geology 480, and permission *of the instructor.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *Graded on a satisfactory/no credit basis. See "Departmental Honors," page 36.*

496r Geology Field Experience (1-4)
Participation in the examination of the geology of a region based on a department-sponsored geologic expedition. Pre and post-trip written reports are required. On demand. Prerequisites: introductory *course in the* natural sciences, and permission of the instructor.

497r Research (1-4)
On demand. Prerequisites: receipt *of acceptable research proposal, and permission of the instructor and* department *head. Graded on a satisfactory/no credit basis. Cumulative limit of 4 hours.*

498r Individual Studies (1-4)
On demand. *Consent of* instructor, receipt *of an acceptable proposal, arid permission of the department head. Graded on a satisfactory/no credit basis. Cumulative limit of 4 hours.*

499r Group Studies (1-4)
On demand. Consent o/instructor. Cumulative limit *of 4 hours.*

Physics (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)ond Konwestem Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours; approved related course below will apply)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

One of the following options:
1. Two semesters of French or German
2. Computer Science 118 or Engineering 124

Mathematics 151/152,161/162, 212, 245, 255
Chemistry 121,122
Physics 230 (or 103 and 104)
Physics 231 and 232
Physics 341,342, and 411
6 hours from Physics 381r, 382r, 481r, and 482r
30 additional hours from physics, astronomy, chemistry, engineering, or mathematics at the 200 level or above or from geology and biology or other fields with prior approval by the department.
Recommended: Physics 303,307,310,412, and 414r are recommended for students who plan on graduate study in physics /astronomy.
At least 30 hours of physics and astronomy at the 300 and 400 level
2.0 average in all physics courses

Electives to complete 128 hours

PHYSICS MINORS

Physics:
Required courses: Physics 230 & 280 (or 103 or Engineering 103 and 104), Physics 231, Physics 232 (or 104).
Elective courses: A planned program of at least 12 hours of physics at the 300-400 level selected with the prior approval of the department.
Minimum 2.0 average in the minor.

Health Physics:
19 hours of physics including:
A. One of the following introductory options: 103 &183 and 104; or 230 & 280,231, and 232; or Engineering 103,104, Physics 231, and 232. ,
B. Physics 441,442,482r and 3 hours from 318,412,419, or departmentally approved special projects.
Minimum 2.0 average in the minor.

ASTRONOMY COURSES

101 Introduction to Astronomy - The Solar System (4 with lab, 3 without)
Descriptive and conceptual introduction to the nature and origin of the solar system. Optional 2-hour laboratory illustrates concepts of practical astronomy. On demand. *Lecture* 3 *hours.*

102 Introduction to Astronomy-Stars to Galaxies (3)
Nature of stars and galaxies; evolution and structure of the observable universe with emphasis on the experimental foundations of the science Fall semester.Prerequisite: two years *of high school* algebra or Mathematics 106. *Corequisite:* Astronomy **182** *laboratory* or permission *of the head ofhte department.*

182 Astronomy Laboratory - Stars to Galaxies (1)
Laboratory to accompany Astronomy 102. Exercises and observations include learning to set up and use a telescope, spectroscopy, a deep sky observing session, a visit to Jones Observatory and Planetarium, photometry, and the Hubble Redshift-Distace relation. Fall semester. *Two hours per week.* *Coreauisite:* Astronomy *102 or permission of the head of the department.*

199r Special Projects (1-4)
Individual or group studies. On demand. Prerequisites: *permission of the* instructor and *head of the department. Cumulative limit of 4 hours.*

300r Advanced Astronomy Laboratory (1)
Laboratory techniques in astronomy. Applications of spectroscopy, optics, modern photographic techniques, and photometry to observational astronomy. Use of the university's observatory. On demand. Prerequisite: Astronomy 101 or *102, & 182 or permission of the instructor. Cumulative limit of 2 hours.*

401 Solar System Astrophysics (3)
Application of basic physical laws to the problem of the origin and evolution of the solar system. Solar structure and energy sources, radiative transfer, the solar magnetic field, the interplanetary medium, celestial mechanics, comets, meteors, asteroids, the planets, and their satellites. On demand. Prerequisite: *Physics 342 or permission of instructor.*

498r Individual Studies (1-4)
On demand. *Prerequisites: permission of the instructor and head of the department.*

499r Group Studies (1-4)
On demand. Prerequisites: permission *of the instructor and head of the department.*

GENERAL SCIENCE COURSES

111 The Physical Environment: Atoms to Galaxies (3)
Description of physical science from three view points: its historical and sociological significance, the processes of science, and the present content of scientific fact and theory. Topics include physics, chemistry, geology, and astronomy. Prerequisite: *2 units of college preparatory mathematics or Mathematics 106, or permission of the head of the department. Corequisite: General Science 181 Laboratory, or permission of the head of the department.*

181 General Science Laboratory (1)
Laboratory to accompany general science 111. Studies involve error analysis, circuits, optics, nuclear radiation, heal and temperature, pH Measurements, astronomy measurements, identification of minerals, a geological field trip, and a visit to Jones Observatory. Every semester. Two hours per week. *Corequisite:* *General Science 111 or permission of the head of the department.*

PHYSICS COURSES

103 General Physics - Mechanics and Heat (3)
Algebra-based introduction to forces and uniform motion, conservation principles, sound and thermodynamics, with applications to problems of modern science and technology. Every semesterXecture 3 *hours. Prerequisite:* 3 *units of college preparatory mathematics or Math 105 or* equivalent; Corequisite: *Physics 1*83 laboratory, or *permission of die head of die department.*

104 General Physics-Electrornagnetism and Optics (4)
Algebra-based introduction to classical electricity and magnetism, optics, and **the concepts of modern** physics. Required **in** premedical, predental, **prepharmacy, and physical therapy** programs. Every semester. *Lecture* 3 *hours laboratory 2 hours. Prerequisite: Physics 103 & 183 or permission of the* instructor.

183 Principles of Physics Laboratory (1)
Laboratory to accompany Physics 103. Experiments investigate various aspects **of forces and uniform** motion, conservation, principles, soud and thermodynamics. Every semester. *Two hours per week. Corequisite: Physics* 103, **or permission** *of **the** head of the* department.

199r Special Projects (1-4)
Individual or group projects. On demand. Prerequisites: permission *of the* instructor and *head of the* department. *Cumulative limit of 4 hours.*

230 Principles of Physics - Mechanics and Heat (3)
Calculus-based introduction to the laws of classical dynamics, kinematics, and **thermodynamics, with** applications to simple physical systems. Every semester. **Lecture 3 hours, Pre-or** Corequisite: Mathematics 161 /162 or permission *of the* **instructor. Corequisite:** Physics *280 laboratory, or* permission *of the head of the department.*

231 Principles of Physics-Electricity and Magnetism (4)
Calculus-based introduction to electric and magnetic fields, electric currents, **electromagnetic induction and** waves. For all engineering students. Every semester. *Lecture 3 hours, laboratory 2 hours. Prerequisites Engineering 103 & 183, 104; or Physics* 103, *104; or Physics 230 & 280;* Mathematics *1511152, 1611162, or permission of die instructor.*

232 Principles of Physics - Optics and Modern Physics (4)
Calculus-based survey of principles of optics, and of the early conceptual **advances in 20th-century** physics: the Bohr atom, quantum theory, relativity, **nuclear** physics **and** elementary particles. For all engineering students. Every **semester. Lecture 3** hours, laboratory 2 *hours. Prerequisites: Engineering* 103 *and 104, or Physics 103 & I83and 104, or 230 and 280; Mathematics 151/152,* 161/ **162,** or permission *of the instructor.*

280 Principles of Physics Laboratory (1)
Laboratroy to accompany Physics 230. Experiments investigate basic laws of **motion, conservation principles,** waves and oscillations, and heat **measurements wit hemphasis** given to error analysis. Every semester. *Two hours per week. Corequisite: Physics 230, orfyermission of the head of the department.*

303 Basic Electronics (4)
Review of simple DC and AC circuitry; applications of diodes, transistors, and **operational amplifiers; introduction** to digital electronics using TTL integrated **circuits and their** applications. Spring semester. *Lecture 3 hours,* laboratory 2 *hours. Prerequisites-.Physics 103 & 183 and 104, or 231; Mathematics* 161/162; or permission *of the instructor.*

304 Electronic Circuits (4)
Theory anduse of basic electronic instruments for electrical measurement or **control. Multi-stage** amplification, feedback, oscillators, and digital/logic **circuitry treated with** varying emphasis. On demand. *Lecture 3 hours laboratory 2 hours. Prerequisite: Physics 303 or permission of the* instructor.

307 Optics (4) *
Basic aspects of geometrical and physical optics, including interference, **diffraction, and polarization; optical** systems; wave equations and superposition; **laser basics. Fall semester alternate** years. *Lecture 3 hours, laboratory 2 hours. Prerequisites: Physics 230 & 280, 231, 232 or Physics 103 & 183, 104; Mathematics 161/162; or permission of the instructor.*

310 Introduction to Thermal Physics (4)
Laws of thermodynamics, kinetic theory, and statistical mechanics with **applications to basic** thermodynamic systems. Fall semester alternate years. *Lecture 3 hours, recitation 2 hours. Prerequisites: Physics 230 & 280, 231, 232; or Physics 103 & 183, 104; Mathematics 161/162. Corequisite: Mathematics* 255; or *permission of the instructor.*

318 Radiation Physics and Introductory Health Physics (3)
Introduction to ionizing radiation, its production and interaction with matter, its biological effects and its measurement. Radiation protection practices and regulatory guidelines. The uses of radiation and radioisotopes in biology, chemistry, environmental sciences, and medicine. Benefits and hazards of nuclear energy. Nuclear weapons and the effects of nuclear warfare. On demand. Prerequisite: *Physics 104 or 232; or permission of the instructor.*

341 Classical Mechanics (4)
Dynamics of particles and continuous media; Newton's law of motion, conservation laws, generalized coordinates, Lagrange's equations, and the principle of least action; the mechanics of continuous media, wave motion, sound, hydrostatics, rotational and irrotational flow, the equation of continuity, Laplace's equation. Fall semester. Lecture 3 hours, recitation 2 *hours. Prerequisites: Physics 230 &* 280, 231 or 103 *and* 183, 104; or permission *of the* instructor. Corequisite: Mathematics *245 or 255.*

342 Electricity and Magnetism (4)
Basic laws of electromagnetism, electric and magnetic properties of materials, Maxwell's equations, boundary value problems, electromagnetic waves. Spring semester. Lecture 3 *hours, recitation 2 hours. Prerequisite: Physics 341;* Mathematics *245, 255;* or permission *of the* instructor.

381r Methods of Experimental Physics (2)
Introduction to experimental design and techniques in areas such as harmonic motion, gravitation, timing and timing coincidence measurements, measurement of thermodynamic properties, electrical and magnetic measurements. Fall semester. Lecture 1 *hours,* laboratory 2 hours. Prerequisites: *Physics 230 & 280, 231, 232; or Physics 103 &* 183, 104. Corequisite: *Physics 341 or 342, 307 or* 310; or permission *of the* instructor. *Cumulative limit of 4 hours.*

382r Classical Physics Laboratory (2)
Advanced laboratory course emphasizing the measurement and analysis of the properties of classical physical systems in optics, mechanics, electricity and magnetism, thermodynamics and materials science. Spring semester. *Lecture* I *hour, laboratory 2 hours. Prerequisites: Physics 230 & 280, 231, 232; or Physics 103 &* 183, 104. Corequisite: *Physics341* or 342, *307or310; or permission of the* instructor. Cumulative limit *of 4 hours.*

400r Physics Seminar (1)
Reports and reviews of Selected physics research, including the abstracting of publications. On demand. Enrollment limited to juniors or above or permission *of the* instructor. Cumulative limit *of 2 hours.* *

411 Introduction to Quantum Mechanics (3)
Basic elements and principles of quantum physics: probability waves, the Schrodinger equation, expectation values and operator formalism, the hydrogen atom, radiation processes. Fall semester. Prerequisites: Physics 230 *&* 280, 231, 232; or Physics 103 *&* 183, 104; Mathematics *245 or 255;* or permission *of the* instruction.

412 Nuclear Physics (3)
Theory of nuclear structure; nuclear radiation characteristics; the interaction of radiation with matter; nuclear binding forces; the control and use of nuclear radiation. Spring semester. Prerequisites: *Physics 230 & 280, 231, 232; or Physics 103 &* 183, 104; Mathematics 245 or 255; *or permission of the instructor.*

414r Advanced Modern Physics (3)
One topic selected from biophysics, elementary particles, quantum mechanics, relativity, solid state physics, statistical mechanics, or superconductivity. Emphasis on the relation of the assumptions and predictions of the theories to the experimental evidence. Consequences of the theories illustrate the nature of physics and its applications in modern science. On demand. Prerequisites: *Physics 341; Mathematics 245, 255; or permission of the* instructor. Cumulative limit *of 9 hours.*

419 Introduction to Nuclear Reactor Physics (3)
Nuclear reactions and radiation; fission processes, neutron diffusion, reactor design variables, reactor materials and shielding, reactivity coefficients. On demand. Prerequisite: Physics *412 or equivalent, or permission of the* instructor.

424 Instrumentation, Interfacing, and Microcomputers (3)
Interfacing instruments, measuring devices, and controls to mini and microcomputers. Includes voltmeters, counters, timers, temperature and other sensors, CRTs, floppy-disks, keyboards, music synthesizers, and control devices such as relays, thermostats, stepper motors, oscillators, and power supplies. Considers standard S100, IEE-488, and RS232C bus structures. Survey of microcomputer applications. Projects involving interfacing instruments with microcomputers. On demand. Lecture 2 *hours, laboratory 2 hours. Prerequisites: Physics 104, 232 or equivalent; Computer Science 110 or equivalent; or permission of the* instructor.

425 Computer-Based Materials Development in Science (3)
Basic principles and practice of developing computer-based materials for science education. Projects to be chosen from a pool of topics in a specific area of science. Each module to include documentation, a tutorial, a pretest, a post test, explanatory material, a question set, a problem set, a graphics segment, etc. Modules to be prepared to publication standards. Prerequisite: CPSC 102 or equivalent. Enrollment limited to *juniors or above or permission of the* instructor.

430 Physics of Living Systems (3)
Introduction to basic biophysical processes occurring at the cellular level. Emphasis on energy transformations, and experimental techniques of biophysics. On demand. *Prerequisites: Physics 230 &* 280, 231, *232, 310; or* permission *of the* instructor.

441 Radiation Dosimetry (3)
Introduction to the theory and methodology of detennining exposure and dose from ionizing radiation. Topics include: radioactivity and radioactive decay processes; the interaction of ionizing radiation with matter; exposure, dose and KERMA; cavity chamber theory; and instrumentation for radiation and dose measurement. On demand. *Prerequisites: Physics 104 or 232, or permission of the* instructor.

442 Radiation Biology (3)
Molecular effects of ionizing radiation and the relationship between molecular events and the acute and chronic effects of ionizing radiation. The human data base for estimates of the effects of low levels of ionizing radiation. Risk assessment of exposure to populations. On demand. Prerequisites: *Physics 104* or *232, or permission of the instructor.*

481r Atomic Physics Laboratory (2)
Advanced laboratory on experimental methods used in atomic physics. Possible laboratory experiments include emission and absorption spectra of atoms and atomic ions, the Franck-Hertz experiment, the Stem-Gerlach experiment, electron-spin resonance, and nuclear magnetic resonance. Analysis of experimental results will be used to study theoretical models of physical processes. Fall semester. *Lecture* I hour, laboratory 2 *hours.* Prerequisites: *Physics 230 &* 280, 231, *232; or Physics 103 & 183,* 104; Mathematics 245; *or permission of the* instructor. Cumulative limit *of 4 hours.*

482r Nuclear and Health Physics Laboratory (2)
Laboratory course in nuclear physics emphasizing the use of modern detection and counting equipment. Laboratory exercises include radiation dosimetry, radioisotope techniques, neutron scattering, gamma-gamma correlation, and the study of nuclear radiation detection. Spring semester. *Maximum credit 4 hours. Lecture 1 hour, laboratory 2 hours. Prerequisites: Physics 230 &* 280, 231, *232 ; orPhysics 103 &* 183, 104, 318; Mathematics *245, or permission of the* instructor. *Cumulative limit of 4 hours.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Political Science

Professor Carrithers, *Head*

Students majoring in political science may earn a B.S. degree, choosing one of four concentrations: Public Administration, American Studies, International and Comparative Studies, or Legal Studies.

The department offers courses in five major subfields of the discipline: political behavior and methodology (200, 202, 203, , 302, 303,401r); political theory (213,314,316, 4llr, 424); public law and administration (221, 223,320,321,322, 323, 421r, 422r, 423,434); American institutions and processes (233, 234,331,333, 335, 43 lr); and international relations and comparative government (242, 244,343r, 345,347, 348,441r, 442r). Certain students may also participate in the State Government Internship Program, the Metropolitan Government Internship Program, or the Judicial Honors Internship.

Political Science (B.S.)

General Education (see pages Z9-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: ENGL 277 or ENGL 279 or ENGL 300 (3 hours)
Oral Communication: THSP 110 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines other than Political Science. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.
All Political Science majors must select a minor within the College of Arts and Sciences. Upon approval of the Department Head a student may select a minor outside the College of Arts and Sciences. Minimum of 2.0 average in minor.

Major and related courses:
One concentration from the following:

Public Administration Concentration:
3 hours Political Science 101
3 hours Political Science 102
3 hours Political Science 200
9 hours from Political Science courses at the 200 level (excluding 200) distributed among three of the five subfields listed above. Must include Political Science 223
9 hours from Political Science courses at the 300 level. Must include Political Science 324
15 hours from Political Science courses at the 400 level including at least 3 hours from the Public Administration area approved by the departmental advisor and no more than 6 hours from Political Science 46lr, 462r, 463, 464,471r, 472,480,481,495r, 497r, 498r or 499r
Related courses (12 hours):
3 hours Mathematics 210
6 hours from Economics 101,102,306,404,426,444,450 or 455 '
3 hours from English 277,279 and 300

American Studies Concentration:
3 hours Political Science 101
3 hours Political Science 102
3 hours Political Science 200
9 hours from Political Science at the 200 level (excluding 200) distributed among three of the five subfields listed above. Must include one of the following: 213, 233, or 234.
9 hours from Political Science courses at the 300 level. Must include 3 hours of appropriate American Studies courses approved by the departmental advisor
15 hours from Political Science courses at the 400 level including at least 3 hoursof appropriate American Studies courses approved by the departmental advisor and no more than 6 hours from Political Science 461r, 462r, 463,464,471r, 472,480,481,495r, 497r, 498r or 499r
Related courses (12 hours):
3 hours Mathematics 210
3 hours Computer Science 110
3 hours from Economics 101 or 102
3 hours from English 277, 279 or 300

International and Comparative Studies Concentration:
3 hours Political Science 101
3 hours Political Science 102
3 hours Political Science 200
9 hours from Political Science courses at the 200 level (excluding 200) distributed among three of the five subfields listed above. Must include Political Science 242 or 244
9 hours from Political Science courses at the 300 level. Must include Political Science 345,347, or 348
15 hours from Political Science courses at the 400 level including 441r and 442r and no more than 6 hours from Political Science 461r, 462r, 463,464, 471r, 472,495r, 497r, 498r or 499r
Related courses (20 hours):
2 years of one foreign language at die college level
3 hours from Economics 101. or 102
3 hours from English 277, 279 or 300

Legal Studies Concentration:
3 hours Political Science 101
3 hours Political Science 102
3 hours Political Science 200
9 hours from Political Science courses at the 200 level (excluding 200) distributed among three of five subfields listed above. Must include Political Science 221.
9 hours from Political Science courses at the 300 level. Must include Political Science 321 or 322
15 hours from Political Science courses at die 400 level including at least 3 hours of courses from the public law subfield approved by die departmental advisor and no more than 6 hours from Political Science 46lr, 462r, 463, 464,471r, 472,480,481,495r, 497r, 498r or 499r
Related courses (20 hours):
2 years of one foreign language at the college level
3 hours Philosophy 211
3 hours from English 277, 279 or 300
2.0 average in all Political Science courses
Minimum of 30 hours of 300 and 400 level courses
Approved program of elective courses outside the Department of Political Science sufficient to fulfill die general University requirement of 128 credit hours necessary for graduation; list of courses normally prepared by the student and approved by die departmental adviser.

POLITICAL SCIENCE MINORS

American Government:
Required and elective courses totaling IS hours.
' Required: 18 hours including Political Science 101, 6 hours from Political Science 203, 213,233 and 234, and 9 hours from Political Science 333, 335,336,431r, 461r, 462r, 463,464,471r, 472,481,498r and 499r. No more than three hours from 461r, 462r, 463,464,471r, 472,481,498r and 499r.
Minimum 2.0 average in minor.

International and Comparative Studies:
Required and elective courses totaling 18 hours.
Required: 18 hours including Political Science 102 and 242 and 12 hours from Political Science 244,345, 346,347,348,441r, 442r, 498r and 499r. No more than three hours from 498r and 499r.
Minimum 2.0 average in minor.

Legal Studies:
Required and elective courses totaling 18 hours.
Required: 18 hours including Political Science 101,221, and 12 hours from Political Science 321,322,323,421r, 461r, 462r, 463,464,471r, 472,481, 498r and 499r. No more than three hours from 461r, 462r, 463,464,471r, 472,481,498rand499r.
Minimum 2.0 average in minor.

Political Psychology & Behavior:
Required and elective courses totaling 18 hours
Required: 18 hours including Political Science 101, 202 and 203, and 9 hours from Political Science 302,303,401r, 461r, 462r, 463,464,471r, 472, 481,498r and 499r. No more than three hours from 461r, 462r, 463,464, 471r,472,481,498rand499r.
Minimum 2.0 average in minor.

Public Administration:
Required and elective courses totaling 18 hours.
Required: 18 hours including Political Science 101, 223, and 12 hours from Political Science 244,316,324, 330,331,422r, 425,461r, 462r, 463,464, 471r, 472,498r and 499r. No more than three hours from 461r, 462r, 463, 464,471r, 472,481,498r and 499r.
Minimum 2.0 average in minor.

POLITICAL SCIENCE COURSES

101 American Government (3)
The foundations, institutions, processes and policies of American national government with attention to the Constitution and such topics as elections, political and civil rights and liberties, federalism, public policy, public opinion, political culture, interest groups, and the role of citizens in governance. Every semeter.

102 World Politics (3)
The evolution, nature, and operation of the contemporary world political system with attention to ideologies, the foreign policies of nation states, the behavior of transnational political and economic organizations, and the effects of international competition. Every semester.

103 Controversies in Public Policy (3)
Contemporary policy issues in American politics with attention to current problems, proposed solutions, and competion viewpoints.

105 Politics, Culture and Society: Non-Western View (3)
A study of culture, politics, and society in the non-western world with emphasis on significant intellectual contributions, modes if inquiry, value systems, structures of belief and practices of everyday life.

199r Special Projects (1-4)
Individual or group projects. Every semester.

200 Research Methods (3)
Basic techniques in political science research. Required for political science majors. Formerly Political Science 301. Fall semester. Prerequisite: *Mathematics 210.*

202 Political Behavior (3)
Basic techniques in political science research. Required for political science majors. Must be taken within first 60 hours, or within first 30 hours of UTC courses by transfer students. Formerly Political Science 301. Fall semester.

203 Public Opinion (3)
Sources, content, and impact of public opinion on the political process. On demand.

213 American Political and Constitutional Thought (3)
A study of the major political and constitutional ideas that have influenced the development of the United States since its founding. Formerly Political Science 315. On demand. Recommended for pre-law majors.

221 Introduction to Judicial Process (3)
An examination of the role, operation and decision-making processes of the U.S. Supreme Court and lower courts. On demand.

223 Introduction to Public Administration (3)
Principles of government organization, management, financial control, personnel practices, and administration. On demand.

233 State and Local Government and Politics (3)
Tennessee state and local government and politics with comparisons to government and politics in the other states. On demand.

234 The Presidency (3)
The nature of the presidency as an institution. Presidential decision making and relations with other branches of government. On demand.

242 International Relations (3)
An examination of the theoretical, historical and behavioral causes of war and peace. Focus on the role of power, sovereignty, and international law on world politics. On demand.

244 Comparative Public Policy (3)
The formation and implementation of social welfare policies in developed and developing nations. On demand.

302 Political Psychology (3)
Psychological bases for political action. On demand.

303 Politics and Communication (3)
Propaganda and other means of political and social control. On demand.

314 Contemporary Political Ideas (3)
The competing ideologies of the 20th century with emphasis on contemporary political and social thought including Marxism and Fascism. On demand.

316 Theories of Politics (3)
An introduction to such theoretical concerns of Western political science as sovereignty, rights, justice, property, liberty, and equality. Readings from Plato, Aristotle, Locke, Montesquieu, Mill and Marx. Formerly Political Science 212. On demand.

320 Philosophy of Law (3)
A study of law and legal reasoning with emphasis on the nature and sources of law, moral theory and its relation to law, definitions of rights and justice, and the nature of legal and moral obligation. Recommended for pre-law majors.

321 American Constitutional Law (3)
Case studies of key Supreme Court decisions affecting the distribution of power in American society. Formerly Political Science 222. On demand. Recommended for pre-law majors.

322 Civil Liberties (3)
Case studies of key Supreme Court decisions affecting the rights and freedoms of the individual in American society. On demand. Recommended for pre-law majors.

323 Law and Politics (3)
Lawyers, judges, police, and the political process. On demand. Recommended for pre-law majors.

324 Public Policy (3)
An examination of the public policymaking process with an emphasis on actors, administration, and evaluation. On demand.

330 Urban Public Policy (3)
An introduction to die different approaches, ideas and programs advanced to address public policy urban problems. On demand.

331 Urban Politics (3)
An examination of political competition and relations among groups, institutions and classes in urban areas. Particular attention is given to how economic and fiscal concerns impact upon the political process. On demand.

333 Political Parties and the Election Process (3)
An examination of America's two-party system, political machines, third parties, modern campaign techniques, electoral behavior, and election administration. On demand.

335 Congress (3)
The contemporary Congress. The roles of congressmen and women, the distribution of power within Congress, relations with other branches of government, and prospects of reform. On demand.

336 Women in Politics (3)
An examination of the role and status of women in the American political system. Special emphasis given to the impact of selected public policies upon women. On demand.

343r Comparative Government and Politics (3)
The study of the governmental structures, processes, and ideologies of different regions of the world, comparing their political, economic, and social policies. May be repeated to focus on different regions of the world. On demand.

345 American Foreign Policy (3)
The basic foreign policy problems confronting the United States. Spring semester.

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346 Comparative Politics: China (3)
A study in comparative culture, history and politics as applied to the current government in the People's Republic of China with an emphasis on the factors which have shaped the government and politics of China since World War II. On demand.

347 Politics of the Middle East (3)
A study of the contemporary politics in the Middle East with emphasis on the evolution of the Arab State System after World War II, the creation of Israel, the Arab-Israeli and other regional conflicts, and the peace process from Camp David on.

348 Politics of Immigration (3)
An examination of immigration policy in the United States with an emphasis on historical patterns, policy debates, legal ramifications, and rules and regulations of the Immigration and Naturalization Sevice.

350 Technology) Politics and Society (3)
An examination of the impact of technology on politics and society, with special focus on public policy shifts resulting from changes in technology. On demand.

401r Advanced Topics in Political Behavior (3)
Selected topics in political behavior. May be repeated once. On demand.

41 lr Advanced Topics in Political Theory (3)
Selected topics in political theory. May be repeated once. On demand.

42lr Special Topics in Public Law (3)
Selected topics in public law. May be repeated once. On demand.

422r Special Topics in Public Administration (3)
Selected topics in public administration. May be repeated once. On demand.

423 Crime and Punishment (3)
An examination of the nature and implications of the major philosophies of punishment with emphasis on their ramifications for assessing the legitimacy of capitalpunishment. Recommended for pre-law majors.

424 Jefferson (3)
An examination of the political and social ideas of Thomas Jefferson wtih attention to their influence on American politics and public policy.

425 Policy Issues in Aging (3)
An introduction to the political, economic, social and health policy questions **raised by phenomenon of an** aging population. On demand.

431r Advanced Topics in American Institutions and Processes (3)
Selected topics in American institutions **and** processes. May be repeated once. **On demand.**

432 Southern Politics (3)
A study of the South's role in national politics with an emphasis on the demographic, economic, social and political forces which give shape to the **political values and** partisan preferences of the region's electorate. On demand.

434 Politics of Child Care (3)
An examination of child care policy in the United States and its implications **for public policy making in** general.

44lr Advanced Topics in International Relations and Foreign Policy (3)
Selected topics in international relations and foreign policy. May be repeated once. **On demand.**

442r Advanced Topics in Comparative Government (3)
Selected topics **in** comparative government. May be repeated once. On **demand.**

461r, 462r, 463,464 State Government Internship Program (3)
Internship conducted during the legislative session in governor's and legislative **offices in Nashville. Spring** semester. *No* more than 6 *credit hours may apply toward the major degree requirements in* the department. Prior approval *of instructor.*

471r, 472 Metropolitan Government Internship Program (1-3)
Internship conducted in various governmental offices in Chattanooga. Fall semester. *No more* than 6 credit hours *may apply toward the major degree requirements in the department. Prior approval of instructor.*

481 Judicial Honors Internship (3)
Internship conducted in the office of a local judge. Student applicants (any **major) must have earned** at least a 3.0 grade point average, completed 60 hours of **coursework** and taken and passed either Political Science 221 or Political Science 321. Selection by a Political Science Department committee.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. *See "Departmental Honors," page* 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
Enrollment limited to students with a 3.0 average in the major. On demand.

499r Group Studies (1-4)
On demand.

Psychology

Professor R. Metzger, *Head*

The Department of Psychology has developed a curriculum which meets the needs of a wide spectrum of interests. The degree options allow for choosing pre-professional or direct work entry, both in the context of a strong liberal art background. The focus is on developing reading, reciting and critical thinking while learning the context of psychology. It is designed moreover to provide a broad but intensive educational experience for students in other fields who have an interest in particular areas of psychology which may bear upon other career plans or goals. The department offers both undergraduate and graduate degrees. Requirements for the B.A. and B.S. degrees follow.

Psychology (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: ENGL 279 (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization 1, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines other than Psychology. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: PSY 201, hours applied to major (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.
Foreign language through second college year
Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major and related courses

27 hours psychology including 101 and either Psychology 460,461, or 412
One course from two of the following lines:
1. Philosophy 211,348
2. History 301,401
3. English 350,400

No more than 6 hours of one psychology course labeled r" and no more than 9 hours of all psychology courses labeled r" will count towards the 27 hours required for the major.
2.00 average in psychology courses
Either Option A or Option B below: >
Courses fulfilling the options may not be used to fulfill other requirements, including general education requirements, with the exception that courses used to fulfill either of the options may be used to fulfill the foreign language requirement.

Option A
An established minor from another department.
Option B
18 hours from one of the lines below.
At least three courses must be from the 200 level or above.
1. Biology, chemistry, physics
2. History, political science, sociology/anthropology, economics
3. Business administration, human services, military science, communication
4. Education, health and physical education (not to include service program courses)
5. Computer science, mathematics, engineering
6. English, fine arts, philosophy, history, communication, foreign language

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours -

Psychology (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: ENGL 279 (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disiplines other than Psychology. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: PSY 201, hours conted towards major (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

35 hours of psychology including:
101,201 or equivalent, 202, either 460 or 461 or 412
Two courses from each of the following lines:
1) Psychology 311, 312,313,314,345
2) Psychology 241,308,331,421,448

No more than 6 hours of one psychology course labeled "r" and no more than 9 hours of all psychology courses labeled "r" will count toward the 33 hours required for the major.
2.0 average in psychology courses
Either Option A or Option B below:
Courses fulfilling the options may not be used to fulfill other renjaireraents, including general education requirements.

Option A
An established minor in another department

Option B
18 hours from one line below. At least three of these courses must be from the 200 level or above.
1. Biology, chemistry, physics
2. History, political science, sociology/anthropology, economics
3. Business administration, human services, military science, communication
4. Education, health and physical education (not to include service program courses)
5. Computer science, mathematics, engineering
6. English, fine arts, philosophy, history, communication, foreign language

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

PSYCHOLOGY MINOR

18 hours psychology including Psychology 101 and either 460 or 461; 9 hours must be upper level.
Minimum 2.0 average in the minor.

PSYCHOLOGY COURSES

100 Psychology Study Skills Laboratory (1 hour institutional credit)
Intensive study of introductory psychology with demonstrations, computer simulations, and audio-visual study aids. Focus on study skills and behaviors, derived from psychological research, and applied to Psychology 101 lecture and textbook material to enhance learning. Fall and spring semesters. Credit not applicable toward *any degree. Corequisite: 101.*

101 Introduction to Psychology (3)
Development of the human from infancy to adulthood; selected topics in learning, motivation, emotion, and perception integrated in an exploration of the dimensions and processes of human adjustment from the standpoint of basic psychological theory and research. Every semester. *May not be taken for credit if Psychology 103 has* been *taken previously.*

199r Special Projects (1-4)
Individual or group projects. Every semester. Maximum *credit 4 hours.*

201 Research Methodology: Introductory Statistics in Psychology (4)
Descriptive and inferential statistics, research design, and computer analysis of psychological data. Unique applications of quantitative analysis to problems in research techniques in psychology, consideration of requirements for rigorous analysis of special problems in research in behavioral processes. Every semester. Lecture 3 hours, laboratory 2 hours. Prerequisite: *2 years of high school algebra or Mathematics 106; Psychology 101 or equivalent.*

202 Research Methodology: Laboratory and Field Research Techniques (4)
General introduction to research methods in psychology with an emphasis on basic strategies for empirically identifying causal and correlational relationships. Topics will include laboratory and field techniques, quasi-experimental and non-experimental models, and the ethical issues involved in research. Every **semester. Lecture 3** ***hours, laboratory 2 hours. Prerequisites: Psychology 101 and 201 (or equivalent).***

221 The Psychology of Child Development (3)
Infancy through childhood. Concepts of development and functioning derived from both research and clinical observation. Emphasis on cognitive, social, and emotional development. Child-rearing applications. Every semester. **Prerequisite: 101 or** ***equivalent. Credit not allowed in both Education 203 and Psychology221.***

lit The Psychology of Adolescence and Adulthood (3)
Psychodynamic principles of adolescent functioning. Evaluation of various theories of adolescence. Consideration of life-span development concepts and the adjustment problems related to aging. Emphasis on age-related changes. Every semester. Prerequisite: 101 or *equivalent.* Credit not *allowed* in *both* ***Education 204 and Psychology 222.***

223 Psychology of Aging (3)
Theoretical and empirical introduction to the psychological development of older adults. Discussion of cognition, personality, social behavior, and sensori-motor changes as they evolve at the adult end of the life span. Examination of psychological issues in adult coping, death and dying, and work and family roles. Every semester. Prerequisite: 101 or equivalent.

241 Psychology of Individual Differences (3)
Consideration of individual differences in the dimensions of intelligence, personality, interests, and values. Discussion of group differences related to sex, age, race, social class, and intelligence. Examination of genetic and environmental factors influencing these differences. Fall semester.

242 Psychology of Black Experience (3)
Impact of cultural differences from a psychological perspective. Principles, theories and research in psychology applied to black experience. Differences in socialization, personality, and social processes. Topics include intelligence, racial identity, and psycholinguistics. Spring semester.

251 The Psychology of Personal Adjustment (3)
An overview of the major theories of adjustment and maladjustment, incuding classical psychoanalysis, neo-Freudian analysis, humanistic psychology, and social learning and behavior theory. Other topics will include the role of religion, economic status, and cultural context in adjustment.Every semester. Prerequisite: 101.

308 Principles of Abnormal Psychology (3)
A bio-social approach to theories of causation, development, and symptomatic behavior in emotional disorder; theoretical bases of the various therapies and of positive means of prevention. Every semester. *Prerequisite:* 6 *hours of psychology.*

311 Learning and Motivation (3)
Study of the effective conditions for various learning phenomena; roles of motivation, reinforcement, and punishment in learning. Fall semester. **Prerequisite:** ***101, 201, 202 at equivalent or*** **by** ***permission of instructor.***

312 Sensation and Perception (3)
Study of sensory and perceptual processes; examination of the sense organs and related neurophysiological mechanisms, and the necessary stimulus conditions for particular perceptual phenomena. Laboratory. Fall semester. Prerequisite: **101, 201,** ***202 or equivalent, or by permission of instructor.***

313 Cognitive Processes (3)
Examination of the ways in which people process information; with an emphasis on attention, memory, problem solving and language. Spring semester. Prerequisite: 101, 201, *202 or equivalent or* by_permission *of instructor.*

314 Physiological Psychology (3)
The study of the physiological bases of behavior with emphasis on the functional neural systems of the brain which mediate behavior. Laboratory designed to familiarize students with basic neuroanatomy and neurophysiological techniques used in the investigation of brain functions and behavior. Spring semester. *Prerequisite: 101 or* 6 hours *of college* biology *courses,* ***or permission of*** **instructor.**

316 Psychology of Communication (3)
An examination of complex behavioral processes within and between systems. The role of communications in thinking and problem-solving both by , individuals and groups. Practical applications and problems of communication in such areas as management, market research, industry, and intelligence: Laboratory. Fall semester. Prerequisite: *101, 201, 202 or permission of instructor.*

331 Social Psychology (3)
Survey of the general concepts and research areas in social psychology.' Emphasis upon the interactions between the individual and society with consideration of such topics as attitudes, prejudices, conformity, deviance, socialization, and interpersonal attraction. May be registered for as Sociology **331. Every semester.** ***Prerequisite:*** **6** ***hours of psychology or sociology. Credit not allowed in both Psychology 331 and Sociology 331.***

340 Applied Developmental Psychology (3)
An in depth examination of interactions among 1) processes in cognitive, language, social, and emotional development and 2) environmental experiences of children, form birth through adolescence. Emphasis on analysis of the implications of these interactions for the welfare of current and future generations of children. Prerequisites: *Psychology 221 or equivalent.*

345 Psychological Tests and Measurements (3)
Principles of psychological measurements including reliability, validity, errors of measurement, techniques of test construction, and problems in assessment and prediction. Laboratory use of selected tests. Fall semester. Prerequisites: 101, **201,** ***202 or equivalent or by permission of instructor.***

401 Intermediate Statistics in the Behavioral Sciences (3)
The use of a popular statistical package for the conduct of statistical analyses in psychology. Applications include common descriptive and inferential techniques including the analysis of variance and multiple regression analysis. On demand. Prerequisite: 201 or equivalent *introductory* statistics *course.*

406 Industrial/Organizational Psychology (3) ;
Introduction to the study of organizations with emprfasis upon personnel selection, criteria, and training. Special consideration of work motivation, job satisfaction, and the role of the organization in behavior. Fall semester. Prerequisite: introductory statistics *course.*

407 Professional Psychology (3)
Role models of the psychological practitioner in community settings. Discussion of the foundations, methods, ethics, legal issues, and relationships with other specialists involved in professional psychology. On demand. **Prerequisite: 9** ***hours of psychology or*** **permission** ***of instructor.***

410r Advanced Topics in Personality Research (3)
Intensive study of selected topics of current theoretical and research interest in personality, abnormal psychology, and individual differences as they relate to petsonality. On demand. Prerequisite: 101 or equivalent; 6 hours *of upper division* ***psychology,*** **including** ***448; and approval of the instructor.***

411 Experimental Analysis of Behavior (3)
A rigorous analysis of complex behavior from the standpoint of contemporary behavioral systems. Spring semestet. *Prerequisites:* 6 *hours psychology.*

412 Advanced Seminar for Psychological Processes (3)
A comprehensive review of the field as summary experience, especially for senior major students planning to enter graduate study. On demand. ***Prerequisite: 18 hours of psychology or by permission of instructor.***

421 Advanced Developmental Psychology (3)
An in-depth investigation of particular topics in human development, childhood through high school years. Focus on research methodology and findings in relation to social or cognitive development. Spring semester. **Prerequisites: 101** ***or equivalent, 221 or 222, or equivalent.***

431 Advanced Social Psychology (3)
Intensive treatment of selected research areas in social psychology. Emphasis upon *the* interrelationship between current theoretical perspectives and appropriate methodological procedures. May be registered for as Sociology 431. **Spring semester.** ***Prerequisite: 331 or equivalent.***

448 Theories of Personality (3)
Survey of basic theories of personality including the psychoanalytic, sociocultural, factor analytic, the bio-social, and the phenomenological. Strongly suggested for guidance majors. Every semester. *Prerequisites:* 6 hours *of psychology*.

451 Psychology **of Women** (3)
Analysis of empirical data and theoretical viewpoints concerning the psychological development of women. Psychological effects of sex roles, achievement motivation, and abilities of women; models of socialization practices, personality development, and stages of adjustment. Fall semester. Prerequisite: 6 hours *of psychology* and junior standing.

456r Individual Practicum (1-3)
Supervised contact program in community schools or social service agencies. Academic and personal development sought in the individual or small group activities conducted in this program. An activities log and final written report required. On demand. Prerequisites: 6 hours *of upper* division *psychology and approval of instructor*. Maximum credit 6 *hours. Course graded on a satisfactory/no credit basis.*

460 Systems of Psychology (3)
The historical development, major theses, elements of strength, shortcomings, and current trends of the principal schools of psychological thought. Reading and discussion course for psychology majors and graduate students. Spring semester. *Prerequisites: 9 hours of psychology.*

461 Philosophical **Psychology** (3)
Critical analysis of philosophical aspects of current systems of psychology. Particular focus upon assumptions and consequences of various modes of explanation and description. Fall semester.

470 Psychology **of Religion** (3)
Analysis of empirical data and psychological theories involving religious beliefs, practices, and experiences. May be registered for as Religion 470. Every semester. Prerequisites: 6 *units psychology* or philosophy-religion.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r **Individual Studies (1-4)**
On demand.

499r Group Studies (1-4)
On demand.

Social Work

See College of Health and Human Services.

Sociology, Anthropology, and Geography

Professor Robinson, *Head-*

Any student in good standing with the University may be admitted to the major program. Students may earn either a B.A. degree or a B.S. degree with concentrations in either sociology or anthropology. In addition to the major programs, students may earn a minor in sociology, anthropology, or geography.

To enhance opportunities for the anthropology major and to provide services to the community, the University established the Institute of Archaeology in 1976. The institute is an instructional and research museum located in Brock Hall that specializes in archaeological investigations of 19th century industrial, domestic, and military sites. Students may use the collections and archives of the institute for academic projects. By enrolling in specified courses, students may also engage in archaeological survey and excavation, the analysis of archaeological data, the conservation of artifacts, and the organization of museum collections.

The department's Center for Applied Social Research also offers students the opportunity to participate in applied research projects.

Each discipline of sociology, anthropology and geography is regarded separately in applying the 42 hour limit in any one department for the B.A. degree.

Sociology and Anthropology: Anthropology, Sociology Concentrations (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (ENGL 279 recomended) (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization 1, 11, 111, other than Anthropology (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, other than Anthropology, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines other than Anthropology (6 hours)
Natural Sciences: Two approved natural science courses, at least one including **a** laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours; Sociology 250 recommended)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Foreign language through second college year

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major

Completion of one of following concentrations

1. Anthropology:
33 hours sociology and anthropology including Anthropology 152, 208, 210, 211, and 302; Sociology 314 and 414 or 9 hours of approved anthropology field and laboratory courses; 3 additional hours of sociology; additional hours of anthropology electives to complete concentration.

2. Sociology:
33 hours sociology and anthropology including Sociology 151,312, 314,4H; Anthropology 152 or 208 plus 18 hours of sociology/anthropology electives of which at least 9 hours are in sociology at the 300-400 level. Minimum of 3 hours selected from Soc 305, 307, 345.

2.0 average in all anthropology and sociology courses

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Sociology and Anthropology: Anthropology, Sociology (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (English 279 recomended) (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III other than Sociology. (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines, other than Sociology. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7'8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (Sociology 250 recommended) (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major

Completion of one of following concentrations:

1. Anthropology:
33 hours of sociology and anthropology including Anthropology 152, 208, 210, 211, and 302; Sociology 314 and 414 or 9 hours of approved anthropology field and laboratory courses; 3 additional hours of sociology; additional hours of anthropology electives to complete concentration.

2. Sociology:
33 hours sociology and anthropology including 151,312,314,414; Anthropology 152 or 208; plus 18 hours of sociology/anthropology electives (at least 9 hours at 300-400 level) with 12 of the 18 hours in sociology. Minimum of 3 hours selected from Soc 305,307,345.

2.0. average in all anthropology and sociology courses

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

SOCIOLOGY, ANTHROPOLOGY AND GEOGRAPHY MINORS

Sociology: A student may obtain a minor in sociology by successfully completing Sociology 151 plus 15 other hours in sociology, at least 9 of which are at the 300 or 400 level.
Total: 18 hours.
Minimum 2.0 average in the minor.

Anthropology: A student may obtain a minor in anthropology by successfully completing Anthropology 152; 6 hours from Anthropology 208,209,210 and 211; and 9 hours of anthropology at the 300 or 400 level.
Total: 18 hours.
Minimum 2.0 average in the minor.

Geography: A student may obtain a minor in geography by successfully completing Geography 101 and 104 plus 12 other hours in geography, at least 9 of which are at the 300 or 400 level.
Total: 18 hours.
Minimum 2.0 average in the minor.

ANTHROPOLOGY COURSES

152 Introduction to Anthropology (3)
Cultural and biological development of human society as interpreted by the anthropologist from the remains of prehistoric life and the culture of contemporary humans. Every semester.

199r Special Projects (1-4)
Individual or group projects. On demand.

208 Cultural Anthropology (3)
The comparative study of culture, social organization, economics, government, education, religion, language, and arts in various primitive and present societies; cultural integration and change. Every semester.

209 Physical Anthropology (4)
The origins and relationships of extinct and present forms of humankind from the perspective of the modern synthetic theory of evolution. Mechanisms of heredity and fossil evidence of early primate and hominid populations. The nature of human variation and the development of culture in human evolution. Every semester. Lecture 3 flours, *laboratory 2 hours.*

210 Anthropological Linguistics (3)
A first course in the nature of language and the analysis of linguistic structures with special reference to non-Western languages. Fall semester.

211 Introduction to Archaeology (3)
The study of human prehistoric and historic past through the archaeological record. Basic techniques, methods, theoretical approaches, and major conclusions of archaeological investigation. Every semester.

302 Anthropological Theory (3)
A systematic survey of the development of major theories in anthropology with particular attention to theories of culture. Spring semester. *Prerequisite: 9 hours of anthropology or approval of instructor.*

306 World Prehistory (3)
Topics of world archaeology, covering the paleolithic in the old and new worlds and the search for the prerequisites of civilization. On demand.

307 Sex Roles and Culture (3)
Evolutionary and cross-cultural analysis of sex roles in human societies with special focus on the relative status of women. On demand. Formerly Anthropolgy 310 Prerequisites: 3 hours o/anthropology or approval *of instructor.* May *be registered as Soc 307.* Credit not allowed in *both* Anth *307 and Soc 307-*

311 Music of the World (3)
See Music 311.

315 Primate Behavior (3)
A comparative survey of the biology and behavior of the nonhuman primates, especially monkeys and apes. Topics include the socjal organization of primates in their natural habitats, ecology, morphology, kinship, life histories, politics, play, sexual behavior, communication, intelligence, tool use, and culture. Anthro-pological, psychological, and biological perspectives on the ecological and evolutionary factors that have shaped primate behavior will be emphasized. Every third semester.

320 Tennessee Archaeology (3)
The archaeology of prehistoric and historic Tennessee. Based on archaeological research, an overview of the history of human occupation in the state of Tennessee is presented. Emphasis on local sites whenever possible. Every third semester. Prerequisite: Anthropolgy 208 *or 211 or 340 or approval of instructor.*

330 Ethnography Through Film (3)
The study of ethnographic film in the recording and analysis of material culture and communal life. Special attention is given to the documentation of vanishing cultures, influence of the film maker on informants, non-verbal communication systems, and the film as a scientific and humanistic resource. This course will be taught every third semester. Prerequisites: Anthropology 208 or approval *of the* instructor.

332 Peoples and Cultures of Sub-Saharan Africa (3)
Social and ethnological study of the peoples and cultures of Africa. Traditions and modernization analyzed in light of the contact with Western cultures. Similarities and differences among societies in Africa. African cultures compared and contrasted with the West. Every fourth semester.

333 Peoples and Cultures of India (3)
Social and ethnological study of the peoples and cultures of India. Traditions and modernization analyzed in the light of the contact with the Western cultures. Uniformity and diversity of society in India compared and contrasted with the West. Every fourth semester.

334r American Indians (3)
Prehistory, ethnography, and contact history of indigenous peoples of the New World. May be repeated for credit when different topics have been specified as topics for different semesters. Every third semester. Prerequisite: any *general education* Category C *course or approval of instructor.*

335 Archaeological Field Methods (3 or 6)
Theory, method, and techniques of field research in archaeology, training and practice in surveying, photography, field recording, and other basic skills. Every summer. Prerequisite: *approval of instructor.*

340 Southeastern Indians (3)
Native Americans of the Southeast, their subsistence patterns, social organization, political structures, and belief systems, as derived from archaeological, documentary, and ethnographic sources. Emphasis is given to the late prehistoric and early historic periods. Every third semester. Prerequisites: Anthopology 208 *or 211, or approval of the* instructor.

350 Sex, Gender, and Language (3)
The role of language in the construction and expression of sex and gender in U.S. and other cultures. Topics include separate men's and women's languages; men's and women's different communication styles in intimate relationships, education, and the workplace; gender and identity; power; intimacy; sexual joking; and "silencing" of women. Every third semester.

351 Language and Communication (3)
The nature and evolution of communication, language, and speech. The relationship between language, culture, and society. Topics include nonverbal communication, animal communication, ethnolinguistics, and sociolinguistics. Every fourth semester.

365 Socio-Cultural Perspectives on Health Care (3)
See Sociology 365.

366r Communications Laboratory (3)
Laboratory methods and field techniques of research in human and animal communication. Individual or group projects. Every third semester. Prerequisite: *any general education Category C course or approval of instructor.*

410 Culture and Personality (3)
The influence of cultural patterns upon the development of personality; materials from simple and complex societies; national and tribal character, and relevant theoretical viewpoints. Every third semester. Prerequisites: 3 hours of sociology, anthropology, or psychology or approval of instructor.

412 Forensic Anthropology (3)
A blend of lectures and practice which focuses on the medico-legal importance of the human skeleton in forensic investigations. Emphasis is given to the anthropological and archaeological techniques commonly used in forensic anthropology. Topics include the archaeological recovery of human remains, skeletal identification, skeletal trauma and pathology, personal identification, hair analysis, facial reproduction, and the determination of cause of death and the time interval since death. Spring semester.Prerequisite: 3 hours Anthropology or approval *of* instructor. Formerly ANTH 375.

440 Social and Cultural Change (3)
See Sociology 440. Formerly Anthropology 370.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. See "Departmental Honors," page 36.

497r Research (1-4)
Every semester

498r Individual Studies (1-4)
Every semester.

499r Group Studies (1-4)
On demand.

GEOGRAPHY COURSES

101 Physical Geography (3)
The physical environment with emphasis on processes that influence the distribution and pattern of landforms, water, climate, vegetation, and soil. Every semester.

103 World Geography (3)
Description and analysis of selected world regions, their internal characteristics and problems, and the nature of their interrelationships in a global context. Every semester.

104 Cultural Geography (3)
Systematic study of the distribution and locational processes of population, nutrition and health, disease, religion, agriculture, industry, cities, geopolitics, and other topics in human geography. Every semester.

199r Special Projects (1-4)
Individual or group projects. On demand.

206 Atmosphere, Weather and Climate (3)
The atmosphere about us and its interactions with human society. Atmospheric origin, composition, moisture, temperature, general circulation, and pollution problems. Jet streams and variations of weather and climate over time and space. Every fourth semester.

221 Maps and Mapping (3)
Introduction to types of maps, map construction, aerial photographs, remote sensing, digital image processing, computerized cartography, computerized map applications, and geographic information systems. Every semester.

250 World Resources (3)
Location, utilization, production, consumption, and significance of resources to society. Introduction to the vast, interlocking network of activities that produce and affect the world's use and consumption of resources. Every second semester. Lecture 3 *hours. May be registered as* Environmental *Science* 250. Credit not allowed *in both Geography 250 and* Environmental *Science 250*

303 Geography of North America (3)
Introduction to the physical and cultural geography of North America. Every fourth semester. *Prerequisite: Geography 103 or approval of instructor.*

304 Geography of Latin America (3)
A systematic and regional survey of Latin America and the Caribbean. Topics include Latin America issues, physical environments, aboriginal and colonial geography, agricultural, population growth and migration, the Latin American city, mining and manufacturing. The regional analyses focus on Mexico, Central America, the West Indies, Andean American, Brazil, and the Southern Cone. The unique perspectives of Latin Americans will be traced from pre-culture through language, films, music, and food activities. Every third semester. Prerequisite: *Geography 103 or 104 or approval of instructor.*

305 Geography of Asia (3)
Introduction to the physical and cultural geography of Asia. Every fourth semester. Prerequisite: Geography 103 or approval *of instructor.*

407 Environmental Conservation (3)
Theories, methods, and practices of environmental management and resource utilization. Emphasis on soil, forest, water, mineral, and human resources. Spring semester. May be registered as Environmental Science 407. Credit not allowed in both Geography 407 and Environmental Science 407.

409 Economic Geography (3)
Spatial influences on economic behavior, analysis of the location and spatial structure of world economic activities. Every third semester. Prerequisite: Geography 104.

415 Urban Geography (3)
History of urbanism, study of patterns of cities, spatial distribution of cities, and social and physical structure of cities of the Western world. Every third semester. Prerequisite: Geography 104 or Sociology 151. May be registered as Sociology 415.

465 Remote Sensing and Imagery Analysis (3)
Principles of aerial and satellite photography and infra-red, multispectral, and microwave sensing. Interpretation of remotely sensed data, including application to problems in a variety of environmental sciences. Every fourth **semester. *Lecture 2 hours, laboratory 2 hours. Prerequisites:* Geography *221.* Maybe** registered *as* ESC 465.

466 Geographic Information Systems (3)
Introduction to fundamental principles of geographic information systems (GIS). Applications, data structures and basic functions of GIS. GIS computer programs are used to demonstrate basic GIS functions. Every fourth semester. **Lecture 2 *hours, laboratory 2 hours. Prerequisite: Geography 221. May be registered as ESC 466.***

480 Geography Seminar (1)
Seminar and discussion of topics of current interest in the geography. Student presentations required. On demand.

496r Geography Field Camp (1-6)
A field methods experience (the application of theory and techniques to field problems). On demand. Prerequisites: at *least 12 hours of geography courses.*

497r Research (1-4)
Every semester.

498r Individual Studies (1-4)
Every semester.

499r Group Studies (1-4)
On demand.

SOCIOLOGY COURSES

125 Sociology of Social Problems (3)
Sociological perspectives on selected contemporary social problems such as crime, poverty, hunger, racial and sexual discrimination, alcohol and drug abuse, the threat of war; examination of theories and research on social problems; analysis of possible solutions. Every second semester.

151 Introduction to Sociology (3)
Scientific study of human society, of how individuals and groups adjust to each other and to their social environment; examination of varying research approaches; consideration of basic concepts, theories, and principles of explanation used by sociologists. Every semester.

199r Special Projects (1-4)
Individual or group projects. On demand.

209 Population and Society (3)
The study of population growth and decline, composition and distribution, and the interrelated effects of economics, social structures, and environment resources. Special emphasis is placed on problems of urbanization and population policies. Every third semester.

215 The Sociology of the Family (3)
The study of modern marriage and family institutions from sociological and social psychological perspectives; the social factors of mate selection, kinship relationships and sexual behavior, evaluations of research findings and emerging trends. Every semester.

219 Deviance and Conformity (3)
A social and social psychological introduction to the nature and consequences of "normal" and "deviant" behavior. Theories of deviance with particular attention to role theory and labeling theory in the areas of crime and mental illness. Every third semester.

220 Small Group Behavior (3)
Social relationships and interaction within small groups in various contexts; review of major field and laboratory studies on leadership, communication, problem-solving, and personal satisfactions; experience in techniques of observation, role playing, and sociometric research. Every fourth semester.

250 Social Statistics (3)
Basic statistical techniques such as frequency distributions and graphs, the normal curve, tests of significance, correlation, simple analysis of variance, and applications to socio-cultural data and their interpretation. Prerequisite: Two years *of* high school algebra and math placement level 20 or Math 106 with *rmrmrtum* ***grade of* C. *Credit not allowed in 250 after any other statistics course.* Spring** semester.

300 Urban Sociology (3)
Analysis of how urban areas grow and are spatially organized. Examination of the cultures, social stratification systems, and modes of governance in contemporary American cities. Emphasis on urban problems. Prerequisite: any **general *education Category C course or approval of instructor.* Every third semester.**

305 Minorities in American Life (3)
Character and role of racial, religious, and ethnic minorities in the U.S.; the interplay of historical and current sociocultural processes on attitudes and behavior for both dominant and minority groups; minority-related social problems and their possibilities of solution. Spring semester. Prerequisite: any general *education* Category C *course or approval of* instructor.

307 Sex Roles and Culture (3)
See Anthropology *307*

310 Sociology of Religion (3)
Social and cultural interpretations of religious institutions and the relation of religion to the social order; major emphasis upon theory and research in the context of Western Christian civilization. Every fourth semester. Prerequisite: 3 ***hours of Category C, philosophy or* religion, or *approval of instructor.***

312 Social Theory (3)
Scientific theories of social relations and culture from the 19th century to the present; the role of theory in an empirical science. Fall semester. Prerequisites: **151, or Anthropology *208, or approval of instructor.***

314 Research Methods (3)
The nature of the scientific method and research as applied to the collection, analysis, and interpretation of social and cultural data. An introduction to selected basic techniques in research and the preparation of research proposals. Fall semester., Prerequisite: A statistics course (Sociology *250 recommended); Sociology 151, or* Anthropology 152 or 208, or approval *of instructor.*

317 Organizational Behavior (3)
Structure of social relationships in organizational life: common patterns in development and operation of bureaucratic systems and their effect upon personal values and individual behavior applications in modem education, industry, government, and institutional life. Every third semester. Prerequisite: **any general *education* Category C *course or approval of instructor.***

318 Industrial Sociology (3)
Social organization and process within the formal and informal structure of the industrial unit, evolution of stratification systems, the Industrial Revolution, bureaucratization and the individual, the implications of industrialization and urbanization for human relations in the work process. Every fourth semester. **Prerequisite: any general *education Category C course or approval of* instructor.**

321 Criminology (3)
The nature of crime, criminal statistics, causal factors, theories and procedures in prevention and treatment. Every third semester. Prerequisite: any general ***education Category C course or approval of instructor.***

322 Juvenile Delinquency (3)
The nature of juvenile delinquency; factors contributing to delinquency; methods of diagnosis and treatment of delinquent behavior; prevention of delinquency. Spring semester. Prerequisite: any general *education Category C* ***course or approval of instructor.***

323 Sociology of Corrections (3)
Historical and cross-cultural study of adult detention, punishment, and rehabilitation systems. Examination of political and social values as they relate **to corrections. Every fourth semester. *Prerequisite: any general education Category C course or approval of instructor.***

331 Social Psychology (3)
Every semester. *See Psychology 331.*

335 History of Social Thought (3)
Trends in beliefs and values regarding human society and social interaction from ancient times through the mid- 19th century. Emphasis on the interrelationships between social thought and social context. Every fourth semester. *Prerequisite:* 3 hours *Sociology or* approval *of* instructor.

340 Collective Behavior (3)
Analysis of the varieties of collective phenomena such as crowds, social movements, public opinion, fads and fashion; examination of theories and research on the social context of this behavior and the social and psychological processes within such groups; case studies and examples from contemporary life. Every fourth semester. *Prerequisite: any general education Category* C *course or approval of instructor.*

345 Social Classes in America (3)
Theories and forms of social stratification; differentials in prestige, power, and wealth; social opportunities and mobility; values and behavior at various levels of American society. Every fourth semester. *Prerequisite: any general education Category* C *course or* approval *of instructor.*

355 Sociology of Globalization (3)
Examination of the increasing globalization of political, social, economic, and individual processes. Topics include the effects of globalization on the changing nature of work, the homogenization of cultures, religious fundamentalism as responce, the decline of the nation-state, and die impact on the self. Every *third semester. Prerequisite: Sociology 151 or approval of instructor.*

360 Sociology of Aging (3)
A basic course in social gerontology. The process of aging and the problems of the aged. Changing values and institutional responses to the aged. Every fourth semester. *Prerequisite: any general education Category* C course or approval *of instructor.*

365 Socio-Cultural Perspectives on Health Care (3)
Social and cultural perspectives on health, illness, and the health professions and institutions. Topics will include social epidemiology, health attitudes and behavior, medical folklore, mental health, the socialization of health professionals, the organization of health care, patient-professional relationships, health and medical care in other cultures. Every third semester.. *Prerequisite: any general education* Category C *course or approval of instructor. May be registered as* Anthropology 365. Credit not *allowed in both Sociology* 365 *and Anthropology* 365.

414 Research Seminar (3)
The use of social research techniques to report on social and cultural phenomena; data collection and analysis, writing of a research report. Research project required of all students. Spring semester. Prerequisites: 314.

415 Urban Geography (3)
Every third semester. *See Geography 415*

420 Sociology of Law (3)
Law as a social phenomenon and as a social process. Historical and cross-cultural comparison of law, legal institutions, and enforcement of law. Special attention given to American law enforcement. Every third semester. Prerequisite: *any 300-400 level course in Sociology, Political Science, or Criminal Justice or approval of* instructor. Formerly SOC *320.*

424 Applied Social Research (3)
Examination of the various issues faced by applied social researchers when developing a framework for conducting the research and when determining which data collection and analysis methods are most suitable given the research objectives and needs of the client. Focus on both quantitative and qualitative methods, but with special emphasis on the latter. Every second semester. Prerequisite: Sociology 314 or Psychology *202 or Political Science 200 or* other approved *course in social research.*

425 Advanced Sociology of the Family (3)
Examination of selected topics in the sociology of the family. Emphasis on the interaction between the family and the society. Special attention given to power relationships and gender roles in marriage and the family. Every fourth semester. Prerequisite: *215, or Human Ecology 205 or 340, or Social Work 210, or approval of the instructor.*

430 Intergroup Dynamics (3)
Social and psychological aspects of prejudice, discrimination, and minority relations; effects of shifting social, economic, and power relationships; and examinations of varying strategies aimed at change, and their consequences. Every fourth semester. Prerequisite: *Sociology 305 or approval of instructor.*

431 Advanced Social Psychology (3)
Spring semester. *See Psychology 431 •*

440 Social and Cultural Change (3)
How cultures develop, mature, and face disruption or decline, stability, and change; special attention to technological change, "cultural lag," and problems of developing nations and peasant societies. Every fourth semester. Formerly *370. Prerequisite: 3 hours of sociology or anthropology or approval of instructor. May be registered as Anthropology 440. Credit not allowed in both Sociology 440 and Anthropology 440.*

470r Special Studies and Problems (1-3)
Investigation and reporting on specialized topics in research or theory under faculty direction. Primarily for seniors. On demand. Prerequisite: *permission of instructor. Maximum credit 6 hours.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. See "Departmental Honors," page 36.

497r Research (1-4)
Every semester.

498r Individual Studies (1-4)
Every semester.

499r Group Studies (1-4)
Every semester.

Spanish

See Foreign Languages and Literatures.

Theatre and Speech

Associate Professor Duffy, *Head*

The Department of Theatre and Speech offers a curriculum that leads to a Bachelor of Arts degree with a major in Theatre and Speech. It seeks to promote an understanding of cultural history, an appreciation of meaning and form, a respect for and a facility with language, a sense of responsibility for the larger human community, and a firm grounding in the discipline and the creative processes involved in the making of theatre.

Through its curriulum and public season of performance the department is committed to exposure to and enhanced appreciation of the art of the theatre and the related art of film. The department provides the means for involvement in the art of theatre for interested members of the University community.

Courses designed to develop basic competency in oral communication are regularly offered by the department.

Students may elect to take specified courses leading to state licensure to teach theatre at the primary and secondary level.

Theatre and Speech (B.A.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: Completion of the oral communications requirement within the major. (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses.other than theater & speach, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Foreign language through second college year

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major and related courses

4 hours design and technical theatre: 141, 143
3 hours acting: 221
6 hours directing: 331,431
9 hours dramatic literature and theatre history: 151, 255, 257
9 hours of approved theatre and speech electives selected from 343,457,461r, and463r
6 hours (6 semesters) of performance and production: 2 hours each of 200r, 300r, and 400r
2 courses outside the department may count toward major with approval of department head
2.0 average in all theatre and speech courses

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Theatre and Speech (B.A.)Theatre Education (K-12) concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: Completion of the oral communications requirement within the major. (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours)and Nonwestern Cultures and Civilizations (3 hours) or option (b) World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Art 301, Music 111, English 207 (9 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Foreign language through second college year

Completion of a minor within the College of Arts and Sciences with a minimum 2.0 grade point average

Major and related courses

Art 340
Music 340
Psychology 221 or 222 or Education 204
41 hours of Theatre & Speech courses including, 141,143,151, 200r, (2 semesters) 221, 255,257,300r, (2 semesters),340,331, 343,400r, (2 semesters), 412,431,457, and 463r (Summer Theatre Institute)

25 hours form the College of Education and Applied Professional Studies including Education 201,321 or 323, 433,444; ESPY 400,
For graduation: 2.0 major in Theatre & Speech courses and 2.0 average in College of Education and Applied Professional Studies
For licensure 2.5 average cumulative, 2.5 at UTC, 2.5 average in education courses with no grade less than a C, 2.5 in content area coursework with no grade lower than C.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

THEATRE AND SPEECH MINORS

Theatre: 19 hours including Theatre and Speech 143,151, 255 or 257, and 343; 3 hours from Theatre and Speech 457, Classics 395,397, English 420, 421; 4 semesters of 200r.
Minimum 2.0 average in the minor.
Minimum 8 hours at the 300-400 level.

Drama: 18 hours including Theatre and Speech 151, 255,257, and 457; 6 hours from Theatre and Speech 450,485, Classics 395,397, English 420, 421, or 435.
Minimum 2.0 average in the minor.
Minimum 8 hours at the 300400 level.

THEATRE AND SPEECH COURSES

100r Performance and Production (1)
Introductory laboratory course in performance and production. Prerequisite: Permission *of department head.* Graded by /acuity jury. *May be repeated for credit.*

107 Voice and Diction (3)
Systematic training of the speaking voice for controlled articulation, volume, and tone in interpersonal communication. Every semester.

108 Oral Interpretation (3)
Systematic teaching of the principles and skills of effective oral reading with a continuing study of voice and diction. On demand.

109 Public Speech Communication (3)
Practical application of the principles of public speaking and group discussion. Every semester.

I11 Introduction to the Theatre (3)
A study of the theatre and its drama; examination of selected plays as representative types of drama, as products of a cultural milieu, and as works intended for performance. Designed to heighten the student's perception, appreciation, and enjoyment of a variety of forms of theatre in performance. Every semester.

113 Introduction to Dance (3)
An introductory study of dance froms and function and of specific practices in a range of different cultures. Designed to heighten the student's understanding and appreciation of how dance expresses aesthetic values and how it embodies social, religious and political values.

115 Theatre: Introduction to Performance (3)
Introduction to acting and use of total instrument of the theatre. Emphasis upon dramatic theory and literature and their relationship to performance. Every semester.

121 Beginning Acting (3)
The basic principles of acting. On demand.

141 Theatre Practice and Theory (1)
Introduction to production organization and techniques involved in the use of the teatrical instrument. Fall semester.

143 Basic Design in Theatre (3)
Introduction to the principles and practices of designing theatrical environments and costumes for plays. Study and practice in analysis of various styles and types of plays; basic visual and spacial principles; developing theatrical imagery; and communicating design ideas. Spring semester.

151 Play Analysis (3)
Nature of drama and theatre in its historical context with emphasis upon analysis of playscripts as the basis for creation of theatrical images. Formerly 105. Fall semester.

199r Special Projects (1-4)
Individual or group projects. Every semester. Maximum credit 4 hours.

200r Performance and Production (1)
Lower division laboratory course in all aspects of theatre performance and production. Project assignments in departmental productions and workshops. Every semester. Prerequisite: *permission of department head. Graded by faculty jury. May be repeated for credit.*

209 Business and Professional Speech Communication (3)
Study of the modes and processes of speech communication in organizations. Development of individual skills in group interaction and decision-making as well as informative and persuasive speech. On demand.

221 Acting I (3)
Fundamentals of acting and of speech for the theatre. Formerly 227. Fall semester. *Prerequisite: 151 andlor* permission *of instructor. Corequisite: 200r.*

230 Contemporary Francophone African Cinema (3)
See Modern Language 230.

255 The Theatre to the Renaissance (3)
History of the theatre as an art and as an institution from its beginnings to the 17th century. Fall semester Prerequisite: 151 *or permission of instructor.*

257 The Theatre from the Renaissance to the 20th Century (3)
History of the theatre as an art and as an institution from the Renaissance to die 20th century. Spring semester. *Prerequisite: 151 or permission of* instructor.

280 Introduction to Film (3)
The history and language of motion pictures studied by viewing and analyzing selected film masterpieces and the ideas they explore. Every semester.

300r Performance and Production (1)
Upper division laboratory course in all aspects of theatre performance and production. Project assignments in departmental productions and workshops. Every semester. Prerequisite: *2 semesters of 200r and permission of department head. Graded by faculty jury. May be repeated only once for credit.*

307 Advocacy and Debate (3)
A study of contemporary procedures in deliberation, persuasion, and debate utilizing current topics of public interest. Emphasis on the development of individual skills in rational decision-making and advocacy through actual experiences inintercollegiate and parliamentary forms of debate. Formerly 320. On demand.

308 Readers' Theatre (3)
The study of literature through group performance and the development of skilled verbal and nonverbal expression based on the critical examination of written texts. On demand.

309 Contemporary Public Speech Communication: Concepts and Cases (3)
Study of rhetorical principles employed in addresses by contemporary leaders concerning significant current questions: practice in the application of rhetorical principles in speeches and oral reports. On demand.

331 Directing 1(3)
Basic elements of play directing: play analysis, director-actor communication, and the uses of improvisation. Each students will direct a short scene and participate in diagnostic criticism. Formerly 317. Fall semester. *Prerequisites: 143,* 255, *257, and permission of instructor. Corequisite: 300ror400r.*

340 Theatre Arts for Children (1)
Implementation of discipline-based theatre arts concepts and creative drama techniques for die child. Laboratories in addition to regularly scheduled classes will be included. Fall and Spring semester. *Prerequisites: THSP 115, PSY 221 OR HECO 240, MUSI 11, ART 301. CorequisitesMUS 340, ART 340.*

343 History of Costume (3)
Study of wearing apparel, principally in the western world from ancient Egypt to the present with a particular emphasis on clothing as a reflection of die cultural milieu. Formerly 313. Spring semester alternate years.

400r Performance and Production (1)
Upper division laboratory course in all aspects of theatre performance and production. Projects assigned in departmental productions and workshops. Every semester. *Prerequisite: 2 semesters of 300r and* permission *of department head. Graded by faculty jury. May be repeated only once for credit.*

412 Theatre for Youth (3)
All phases of producing plays for or by junior audiences examined, including the techniques of creative dramatics. On demand.

431 Directing II (3)
Directing of short scenes for laboratory presentation and participation in diagnostic criticism. Spring semester. Prerequisite: *331 and permission of* instructor. Corequisite: 300r or 400r.

450r Topics in Drama and Theatre (3)
Study of dramatic genres, dramaturgy, playwrights, theatre and performance theory, applications and/or interpretations by theatre artists. A specified topic will be listed in course schedule. On demand. *May be repeated for up to 6 hours credit when specified topics differ.*

457 Conceptual Foundations of the Modern Theatre (3)
Studies in the concepts of selected playwrights, directors, and designers who helped to shape the directions of the twentieth-century theatre and its drama. Spring semester alternate years. Prerequisite: *permission of* instructor.

461r Directed Studies in Advanced Production (1-4)
Advanced problems in design and technical theatre. On demand. *Permission of department head. May be repeated for credit.*

463r Directed Studies in Advanced Performance (1-4)
Advanced problems in acting, directing, and musical theatre. On demand. *Permission of department head. May be repeated for credit.*

485 Film Topics (3)
Directors, genres, styles, or theories of film studied by viewing and analyzing representative films. On demand.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See "Departmental Honors," page 36.*

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

University Studies

See Interdisciplinary Studies.

University Honors Program

Professor Townsend, *Director*

Enrollment in courses taught in the curriculum of the University Honors Program is restricted to full members of the University Honors Program.

The following courses make up the required curriculum for all full members.

FRESHMAN
University Honors lOOr (0)
University Honors 101 (6)
University Honors 102 (6)
University Honors 120 (3)

SOPHOMORE
University Honors 200r (0)
University Honors 214 (3)
6 hours from University Honors 103,104 or 105
3 hours from University Honors 217, 218,219, or 199 (3)

JUNIOR
University Honors 300r (0)
University Honors 315 (3)
University Honors 316 (3)

SENIOR
University Honors 400r (0)
Departmental Honors 495 (4)

NOTE: Requirements for the selected degree and major program must be met. Students in certain degree programs may have to obtain permission to alter the UHON curriculum schedule and/or extend their study beyond the fourth year in order to complete both UHON and degree program requirements. UHON students muse enroll in the appropriate Honors Studies course (100, 200, 300,400) each semester in residence. A minimum of 8 semesters with a grade of "satisfactory" is required.

For further information, contact the University Honors Program office, 202 Guerry.

lOOr Freshman Honors Studies (0)
An introduction to the nature of University Honors education and a general orientation to the functions and resources of the university and the honors program. Designed to help University Honors freshmen better understand the Honors program curriculum, requirements, expectations, and procedures, to be familar with University resources, and to prepair them to enter effectively into the intellectural life of the University. Fall and Spring semesters. Courses graded on a Satifactory/No credit basis. Limited *to* University Honors Program students. Required in *the first and second semester of die freshman year.*

101, 102 Humanities 1 & II (6,6)
Selected authors from the traditional corpus of Western literature with emphasis on historical and intellectual contexts; analysis of specific texts through seminar discussion and written work. 101 fall/102 spring semester. Limited *to* University Honors *Program* students; *others* by permission *of instructor.*

103 Fine Arts: Music History and Aesthetics (3)
-A general review of the aesthetics and history of Western concert music. Spring semester. *Limited to* University Honors Program students; others by permission *of* instructor.

104 **Introduction** to **Art** (3)
Consideration of the formal elements, design principles, and technical factors in the production of works of visual art. Examination of selected works representative of a broad range of functions, forms, styles, and artistic intentions. Comparisons between works of different peroids. Designed to heighten perception, appreciation, and enjoyment of the visual arts. Fall Semesters. *Limited to University Honors Program* students; others by permission *of*

105 Introduction to the Theatre (3)
A study of the theater and its drama; examination of selected plays as representative types of drama as products of a cultural milieu and as works intended for performance. Special emphasis is placed on acting and direction as instruments of performance. Designed to heighten the student's perception, appreciation, and enjoyment of a variety of forms of theater in performance. Limited to University Honors Program students; others by *permission of instructor.*

120 Development of Scientific Thought (3)
Selected topics in history of science designed to illustrate the methods by which science progresses. Creativity, characteristics of scientists, and their struggle with society will form the background for study of the advancement of science. Fall semester; spring on demand. Limited to University Honors Program students; others by *permission of instructor.*

199r Special Projects (1-4)
Individual or group project. On demand. Maximum credit 4 hours.

200r Sophomore Honors Studies (0)
Introduction in University Honors Program mentoring, involvement in the life and leadership of the University, and study abroad opportunities. Designed to help University Honors sophomores better understand their chosen academic disciplines, their roles as mentors to beginning students, the benefits and responcibilites of involvement in the university's student goverance, committee work, campus organizations, the value of community service, and opportunities for undergraduate education abroad. Fall and Spring semesters. Courses graded on a Satifactory/No credit basis. Limited to University Honors Program students. *Requiredin the first and second* semester *of the sophmore year.*

214 Classical and Medieval Historical and Political Thought (3)
Critical analysis of the origin and development of Western historical, political, and social theory from antiquity to the early Renaissance. Readings from the works of the central figures of the Greek city-state, Roman Empire, Medieval Church, and Renaissance Europe, including Herodotus, Thucydides, Plato, Aristotle.'i.ivy, Tacitus, Plutarch, Augustine, Aquinas, and Machiavelli. Consideration of Gibbon as representative of historical interpretation. Every semester. Limited to University Honors Program students; others by permission *of* instructor.

217 The Chinese and Japanese Traditions (3)
Readings of central texts in East Asian civilization, including Confucianism, Legalism, Taoism, Buddhism, Zen, as well as great works of literature. Discussion of texts and written analysis to facilitate comparisons with western thought. An appreciation of different intellectual traditions is a major goal. On demand. Limited to University Honors Program students; *others* by permission *of* instructor.

218 The Tradition of India (3)
A study of Indian culture through a reading of texts selected from classical and modern Indian literature, supplemented by lecture, audio-visual materials, and library materials. On demand. Limited to University Honors *Program* students; others by permission *of* instructor.

219 Africa Through Its Literature (3)
A study of the socio-cultural, historical, and political dynamics of the continent and its peoples through reading, discussion, and analysis of African literary works by and about Africans. On demand. Limited *to* University Honors Program students; *others* by permission *of instructor.*

300r Junior Honors Studies (0)
Introduction in planning for the Departmental Honors (DHON) project. Designed to prepare students for intensive, extended research projects in their disciplines by workshops and discussions on discipline-specific library research, topic focus and development, advisor and committee selections, proposal development and writing, and project scheduling. Fall and Spring semesters. Courses graded on Satisfactory/No Credit basis. *Limited to* University Honors Program students. *Required in the first and second semester of the junior year.*

315 Origins of the Social Sciences (3)
Analysis of the origins, development and nature of the social sciences using contemporary theories and methodologies. Core texts from seminal thinkers such as Luther, Locke, Rousseau, Marx, and Durkheim will be used as case studies of the developing modern social and human sciences. Fall semester and on demand in Spring. Limited *to University* Honors Program students; others by *permission of* instructor. *Prerequisite: 214.*

316 Contemporary Social Science (3)
The theory, methods and findings of contemporary empirical social science with an emphasis on social scientific understandings of individuals in the context of cultures and societies. Core texts from such authors as Marx, Freud, Weber and Levi-Strauss. Spring semester, and on demand in Fall. Limited to University Honors Program students; others by permission *of* instructor. *Prerequisites: 214, 215.*

400r Senior Honors Studies (0)
Introduction inthe timely execution of the Departmental honors (DHON) project and planning for the post-baccalaureate world Designed to address such matters as scheduling, deadlines and formation ofthe DHON project, planning for graduate and professional school, and career placementskills. Fall and Spring semesters. Courses graded on Satisfactory/No Credit basis. Limited to *University* Honors Program students. *Required* m the *first and second* semester *of the senior year and all additional semesters m residence.*

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

College of Business Administration

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The mission of the College of Business Administration at the University of Tennessee at Chattanooga is to develop business professionals and entrepreneurs whose skills, creativity, and high ethical standards demonstrate the best aspects of a free enterprise system and serve as a standard for global economic development. To fulfill its mission the College seeks the support and participation of students, faculty, and community leaders in educational programs, research activities, and cooperative alliances that provide mutual benefit to all stakeholders through the sharing of knowledge, experience, and insight. In all its initiatives the College strives to foster progressive innovation and an entrepreneurial spirit.

The curricula also provide essential skills for employment opportunities in related career fields. Career preparation is offered in the following areas:

Accounting
Entrepeneurship
Finance
General Management
Industrial Management
Human Resource Management
Marketing

The college also offers a minor in entrepreneurship.

The college is organized into three departments, Accounting and Finance, Management, and Marketing.

It offers three degree programs: Bachelor of Science with a major in business administration and concentrations in accounting, finance, general management, industrial management, human resource management, marketing, and entrepenuership; Master of Business Administration (includes Executive MBA Program); and Master of Accountancy.

These degree programs are accredited by the American Assembly of Collegiate Schools of Business (AACSB).

The letter B used before a course name is an abbreviation for "Business." Example: B(usiness) Accounting.

Accounting and Finance

Professor Fulmer, *Head*

The Department of Accounting and Finance offers concentrations designed to prepare students for professional positions in the profit and nonprofit sectors. The Bachelor of Science degree in business administration may be obtained with concentrations in accounting or finance.

Business Administration (B.S.): Accounting concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric & Composition: English 121, 122 (6 hours)
Intensive Writing: English 277,300, or 410 (3 hours)
Oral Communication: Theater and Speech 109 (3 hours)
Computer Literacy: BMGT 100 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or Option (b) Western Civilizations I, **II,** and **III** (9 hours)
Humanities and Fine Arts: 2 approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral and Social Sciences: 2 of the following courses: Psychology 101, Sociology 151, Political Science 101, Anthropology 152 (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 131 (3 hours)
Statistics: BMGT 211 (3 hours)

Exercise Science, Health and Leisrue Studies 021 plus one additional semester exercise science activity.

Major and related courses

6 hours selected from Political Science 101, Psychology 101, Sociology 151, or Anthropology 152
Mathematicsl36
One course from English 277,300,410
Economics **101,**102

28 hours common body of knowledge from the College of Business Administration including: Accounting 201; 202, 335; Finance 302; Management 212, 311, 315,440,441; Marketing 313

Accounting concentration:
21 hours from the College of Business Administration including: Accounting 300, 301,302,305,307,405,408
12 hours: 6-9 hours chosen from Accounting 306, 401, 406, 407,411, 412, 424, 452,481; 3-6 hours chosen from Finance 318,321,403,418; Accounting 336; Economics 301,429; Management 356
2.0 average in all accounting courses

A minimum of 54 hours of the 128 total must be taken at the 300-400 level
Electives to complete 128 hours
Maximum of 73 hours total accepted in College of Business Administration courses; i.e., at least 55 hours other than College of Business Administration courses must be completed
At least 50% of the business credit hours required for the B.S. degree in Business Administration must be earned at UTC.

Business Administration (B.S.): Finance concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric & Composition: English 121, 122 (6 hours)
Intensive Writing: English 277, 300, or 410 (3 hours)
Oral Communication: Theater and Speech 109 (3 hours)
Computer Literacy: BMGT 100 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or Option (b) Western Civilizations I, II, and **III** (9 hours)
Humanities and Fine Aits: 2 approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral and **Social** Sciences: 2 of the following courses: Psychology 101, Sociology 151, Political Science 101, Anthropology 152 (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 131 (3 hours)
Statistics: BMGT 211 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

6 hours selected from Political Science 101, Psychology 101, Sociologyl51, or Anthropology 152
Mathematics 136
Economics 101,102
One course from English 277, 300,410
28 hours common body of knowledge from the College of Business Administration including: Accounting 201, 202, 335; Finance 302; Management 212, 311, 315,440,441; Marketing 313

Finance **concentration:**
18 hours including Finance 318,320,321,418,421,423
Accounting 312,408
3 hours chosen from any 300 or 400 level Accounting or Finance course
6 hours chosen from any 300 or 400 level course in Accounting, Economics, Finance, Management or Marketing
2.0 average in all finance courses

A minimum of 54 hours of the 128 total must be taken at the 300400 level
Electives to complete **128** hours
Maximum of 73 hours accepted in the College of Business Administration courses; i.e., at least 55 hours other than College of Business Administration courses must be completed
At least 50% of the business credit hours required for the B.S. degree in Business Administration must be earned at UTC.
*If exempted, student may take Mathematics 136.

ACCOUNTING COURSES

200 The Accounting Cycle (3)
This course develops an understanding of how accounting activities relate to management functions and how accounting information is used internally by managers and externally by various parties in their decision processes. Students develop an understanding of financial and managerial accounting for use in real-world situations.

201, **202 Principles of Accounting** (3,3)
Basic financial and managerial accounting principles as applied to manufacturing, service and retail enterprises. Includes the study of generally accepted accounting. Prerequisite: 201 *with a grade of Cor higher is prerequisite to 202.*

300 Intermediate Accounting **I** (3)
The theoretical foundations and structure of accounting as they relate to the presentation of financial statements. Emphasis will be on the framework underlying financial accounting and analysis of current assets. Every semester. Formerly BACC 303. Prerequisite: *202, junior* standing.

301 Intermediate Accounting **II** (3)
The theoretical foundations and structure of accounting as they relate to the presentation of financial statements. Emphasis will be placed on analysis of fixed assests, liabilities and equity. Every semester. Formerly BACC 304. Prerequisites: *300.*

302 Intermediate Accounting III (3)
The theoretical foundations and structure of accounting as they relate to the presentation of financial statements. Emphasis will be placed on analysis of the statement of cash flows, deferred taxes, leases, pensions, earnings per share, and other financial reporting considerations. Every semester. Prerequisites: 301.

305 Managerial Cost Accounting (3)
Introduction to the managerial-cost accounting models available for planning, controlling, and evaluating operations. Including: the development and utilization of unit standard costs, job order and process costing, variance analysis, direct and absorption costing models, and their data requirements. Every semester. Prerequisite: *202, junior standing.*

306 Budgeting (3)
Cost accounting by standard costs. Gist analysis and cost distribution reports emphasized. Methods and procedures in the preparation and execution of master and special budgets for industrial and commercial enterprises. On demand. Prerequisite: *305 (or* permission *of instructor and 202).*

307 Federal Tax Accounting (3)
Fundamentals of federal income tax with major emphasis upon tax law and regulations applicable to individuals. Every semester. *Prerequisite: 202, junior standing.*

312 Issues in Financial Accounting and Reporting (3)
An application of accounting principles and an examination of how those principles influence the financial reporting process. Credit not allowed for Accounting degree. Spring and summer. Prerequisite: Finance 302.

335 Legal Environment of Business (3)
American legal institutions and sources of law; ethical considerations of business; an introduction to social and political influences as reflected in government regulation. Every semester.

336 Business Law (3)
Fundamental principles concerning contracts, personal property, and bailments, sales, commercial paper, secured transactions, agency and employment, partnerships and corporations, real property. Every semester. Prerequisite: *335.*

401 Advanced Accounting (3)
Theory of business combinations and preparation of consolidated financial statements; accounting for foreign currency translations, and partnerships. Spring semester. Prerequisite: *301;* Management 212

405 Auditing (3)
Kinds of audits, systems of accounts, and methods of conducting audits. Preparation of working papers and reports. Every semester. *Prerequisites -.301,* Management 212, *Prerequisite* orcorequisite: *408.*

406 Advanced Managerial Accounting (3)
An investigation of alternative managerial accounting models available for planning, controlling, and evaluating operating and capital expenditures. Including investigations of the assumptions, behavioral implications, quantitative methodologies, and controversial issues in current and proposed managerial accounting models. Fall semester. *Prerequisites: 305;* Finance *302;*

407 Governmental Accounting (3)
Accounting systems of institutions and various governmental units. Fund transactions, revenues and expenditures, appropriations, and form and content reports. Every semester. Prerequisite: 300.

408 Accounting Information Systems (3)
Review of the strategies, goals, and methodologies available for designing, installing, add evaluating accounting information systems. Also included in how the accounting information system functions as a subsystem of the overall management information system. Every semester. Prerequisites: *300 and 305, or 312.*

411 Taxation of Corporations and Partnerships (3)
Fundamentals of federal income tax laws covering the formation, liquidation and reorganization of corporations and partnerships. Emphasis is placed on the federal income tax laws as they relate to both the entity and the owner. Every semester. Formerly BACC 309. Prerequisite: 307.

412 Taxation of Estates, Gifts and Trusts (3)
A study of the federal taxation of wealth transfers, including federal estate and gift taxes, and the income taxation of estates and trusts. On demand. Prerequisites : 307.

420 Accounting Ethics (3)
This course is designed to provide students with an opportunity to identify and discuss a number of ethical issues faced by practicing accountants in a broad range of work environment. The course investigates approaches for resolving ethical dilemmas and models for analyzing ethical issues. Prerequisites.-12 *hours of accounting courses above* BACC *202.*

424 Applied Financial and Operational Auditing (3)
This course expands upon the auditing material covered in the introductory auditing course. The professional pronouncements (standards) are studied and there is an investigation of the auditing function form the viewpoint of a practicing professional accountant/auditor. In addition, substantial use is made of auditing software and a number of important technical topics are introduced as well as selected research topics. Fall semester and summer. Prerequisites: 405.

452 The Business of Health Care (3)
This course provides a basic understanding of the U.S. health care industry. Emphasis is on health care delivery issues, health care organization issues, and current topics of concern related to health care management and business issues. Summer. Prerequisite: BFIN 302, BMKT 31, BMGT 31*1*, BMGT 315

481 Study Abroad: International Accounting (3)
The purpose of this course is to explore a broad range of topics dealing with international accounting. An examination of international accounting concepts will be supplemented by an intensive travel abroad experience. Through a combination of textbook concepts, outside readings, plant tours, guest speakers, written assignments and classroom discussions students will be able to compare the financial regulation and reporting process in different countries. Additionally, the students will be exposed to the problems of harmonization of international standards and multinational enterprise control. *Prerequisite: 202 and senior standing or permission of instructor.* ,

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. *See "Departmental Honors,"* page 36.

497r Research (1-3)
Every semester.

498r Individual Studies (1-3)
Every semester.

499r Group Studies (1-3)
Every semester.

FINANCE COURSES

300 Small Business Finance (3)
The role and nature of finance in the small business. The essential tenants and concepts of small business finance are distinguished from corporate finance. Prerequisite: BACC *200.*

301 Personal Finance (3)
Designed to help the individual and family make intelligent, informed decisions on personal financial management. On demand.

302 Essentials of Managerial Finance (3)
Management of funds in business, including procurement, utilization, and disposition of money. Financial aids such as budgeting and break even analysis, financial statement analysis, and capital management. Every semester. Prerequisites: Accounting 202; Economics 10/, 102; Management 211; Math 136; junior standing.

318 Financial Institutions (3)
Capital markets and institutions; sources and uses of capital funds; impact of changes in flow of funds on the economy. Fall semester. Prerequisite: BFIN *302,* BACC *202,* ECON 101, 102, junior standing. (Formerly 422).

320 Intermediate Financial Management (3)
A course designed to provide students with a detailed development of key finance concepts introduced in earlier coursework. Topics covered include risk analysis, security valuation, capital budgeting, cost of capital, capital structure, the dividend decision, leasing and mergers. Every semester. Prerequisite: BFIN 302, BACC 202, ECON 101,102, Junior standing, BMGT 212.

321 Investments (3)
Theory of investment; classification of media; security analysis; investment market mechanisms; securities legislation; institutional aids to the investor, investment timing; formulation of investment programs. Fall semester and summer. Prerequisites: *302;* Accounting *202; Economics 101,102; junior standing.*

337 Principles of Insurance (3)
Types of insurance, insurance coverage, policy protection, and company organization and regulation. On demand. Prerequisites: *Economics* 101, 102.

371 Real Estate Fundamentals (3)
A survey course on real estate principles. Topic include porperty rights, property ownership, economic and social issues, and brokerage. On demand. (Formerly 281).

372 Real Estate Law (3)
A survey course on real estate law. Topics include property rights, liens and mortgages, transfer of title, deeds and recording, leases and ethical considerations. On demand. (Formerly 282).

403 Financial Statement Analysis (3)
Techniques of financial statement analysis with special attention paid to the balance sheet and the income statement. Emphasis on current position, profitability, and financial structure of the firm. On demand. Prerequisites: *302,* Accounting 202, senior standing, and *permission of* instructor.

418 Commerical Banking (3)
An in-depth study of commercial banks and their role in the economy. The course provides a comprehensive examination of the issues facing today's commercial bank managers and regulators. Topics covered include: banking history and regulation, credit analysis, asset and liability management, risk management, loan policy, and money management services. Trends such as consolidation, internationalization, and product diversification, are also addressed. Spring semester. Prerequisite: *302, (Formerly 322).*

421 Security Analysis and Portfolio Management (3)
A course designed to introduce the undergraduate to advanced investment analysis and theory. Included in the course will be computer applications and analysis of investment vehicles and strategies. Spring semester. Prerequisites: 321 or BFIN 546; Computer *Science 110.*

423 Financial Management (3)
A case course which affords the undergraduate an opportunity to apply financial principles to actual situations. The course is a continuation of the topics in 320 using the case discussion approach. Fall semester and summer. Prerequisite: 320.

424 Theory of Finance (3)
A lecture/discussion course teaching the theory behind financial decisions. Topics covered include investments and securities, capital budgeting, risk analysis, and application of operations research to finance. On demand. Prerequisites: *302,321.*

431 Speculative Markets (3)
Theory and practical applications of futures, options, and other derivative securities. Concepts, model derivations, thought processes, tools used and numerical examples are included. Summer. Prerequisites: Any *of the following:* BFJN 318,*321,518,546, or approval of instructor.*

471 Real Estate Appraisal (3)
Theory and practical applications of real estate appraisal. Qualitative and quantitative analyses are incorporated into the various approaches of real estate valuation. Topics include cash flow estimation, lease valuation, site valuation and market analyses. On demand. Prerequisite: BF/N *302 and* BFJN 371 or approval *of instructor, (Formerly 283).*

472 Real Estate Finance (3)
Theory and application of real estate financing. Financial mathematics, interest rates, leverage and other financial concepts used in the real estate industry are covered. Topics include the rent versus buy decision, tax effects, alternative mortgage investments, and analysis of financing real estate. On demand. Prerequisite: BFJN *302 or approval of instructor, (Formerly 284).*

482 Study Abroad: International Financial Management (3)
A growing number of companies engage in various types of international financial transactions. Firms that are engaged in international financial transactions face unique problems and risks not encountered by firms that operate in only one country. The increased amount of international trade and the internationalization of money and capital markets make it essential for financial managers to understand the elements of international finance. These elements of international finance are obtained in this course through textbook concepts, outside readings, guest lecturers, field trips and case studies in foreign locations. Prerequisite: *302.*

488 Seminar in Portfolio Management
A seminar in security analysis and portfolio management. Students will experience the actual investment decision process by analyzing and investing designated funds into a variety of securities. Spring semester. Prerequisite: *321 or 546* or permission *of* instructor.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
Every semester. See "Departmental Honors," page 36.

497r Research (1-3)
Every semester.

498r Individual Studies (1-3)
Every semester.

499r Group Studies (1-3)
Every semester.

General Business Administration

Professor Linda Pickthorne Fletcher, Coordinator

General Business Administration consists of courses and programs which are offered to all students regardless of major or department. These courses are intended to enhance students' opportunities to understand business and its environment and provide opportunities to participate in a business practicum. General Business Administration is not a degree program. Courses in this category are designated as BUSA for "Business Administration." Concentration in Entrepeneurship. Minor in Entrepeneurship available to non business majors.

Business Administration (B.S.): Entrepeneurship Concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric & Composition: English 121, 122 (6 hours)
Intensive Writing: English 277, 300, or 410 (3 hours)
Oral Communication: Theater and Speech 109 (3 hours)
Computer Literacy: BMGT 100 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or Option (b) Western Civilizations I, II, and III (9 hours)
Humanities and Fine Arts: 2 approved humanities and fine arts courses, one; from fine arts and one from either (6 hours)
Behavioral and Social Sciences: 2 of the following courses: Psychology 101, Sociology 151, Political Science 101, Anthropology 152 (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 131 (3 hours)
Statistics: BMGT 211 (3 hours)

Major Related Courses
6 hours selected from Political Science 101, Psychology 101, Sociology 151, or Anthropology 152
Mathematics 136
Economics 101, 102
One course from English 277,300, or 410
28 hours common body of knowledge from the College of Business Administration including: Accounting 201, 202, 335; Finance 302; Management 212, 3111 315,440,441; Marketing 323

Entrepenuer Concentration
15 hours including Management 340, 360; Marketing 430; Accounting 312 and Business Administration 459
12 hours chosen from Marketing 361, 364,450; Finance 371; Management 332, 456; Accounting 306
2.0 average in all Entrepeneurship Courses
A minimum of 54 hours of the 128 total hours must be taken at the 300-400 level
Electives to complete 128 hours
Maximum of 73hours total accepted in College of Business Administration courses; i.e., at least 55 hours other than College of Business Administration courses must be completed
At least 50% pf the business credit hours required for the B.S. degree in Business Administration must be earned at UTC

Entrepeneurship Minor (Available only to non-business majors)
18 hours including BMarketing 313,430; BManagement 103,340; BFinance 300; BAccounting 200
Minimum of 8 hours at the 300-400 level
Minimum of 2.0 average in minor

GENERAL BUSINESS ADMINISTRATION COURSES

00 lr Cooperative Work Experience (0)
Cooperative work terms as a part of the cooperative education program in business. Student participation in off-campus work terms in business as a parellel work/learn semester or alternating semester (as either first semester, second semester, or a three-month summer term).

459r Small Business Practicum (3)
Opportunity to integrate and apply specialized disciplinary skills to practical business problems of company-wide scope. Students are assigned as consultants to assist businesses under supervision of a faculty member. Every semester. Prerequisites: Finance *302;* Management 3/1 or permission *of the SBl Director;* Management 315; Marketing 313. *Maximum credit: 6 hours.*

Management

Professor Ettkin, *Head*

The management curriculum is designed to prepare students for careers in both the public and private sectors as well as graduate studies. Students may choose to concentrate in general management, human resource management, or industrial management.

Business Administration (B.S.): General Management concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric & Composition: English 121, 122 (6 hours)
Intensive Writing: English 277, 300, or 410 (3 hours)
Oral Communication: Theater and Speech 109 (3 hours)
Computer Literacy: BMGT 100 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or Option (b) Western Civilizations I, II, and III (9 hours)
Humanities and Fine Arts: 2 approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral and Social Sciences: 2 of the following courses: Psychology 101, Sociology 151, Political Science 101, Anthropology 152 (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 131 (3 hours)
Statistics: BMGT 211(3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses
6 hours selected from Political Science 101, Psychology 101, Sociology 151, or Anthropology 152
Mathematics 136
Economics 101, 102
One course from English 277,300,410
28 hours common body of knowledge from the College of Business Administration including: Accounting 201, 202, 335; Finance 302; Management 212, 311, 315,440,441; Marketing 313

General management concentration:
15 hours including Management 330,331,332,360,438
9 hours chosen from Management 340, 356, 410,411,434, 435, 439, 451, 452, 456; Business Administration 459r
2.0 average in all management courses

A minimum of 54 hours of the 128 total must be taken at the 300-400 level
Electives to complete 128 hours
Maximum of 73 hours total accepted in College of Business Administration courses; i.e., at least 55 hours other than College of Business Administration courses must be completed
At least 50% of the business credit hours applied toward the B.S. degree in Business Administration must be earned at UTC.

Business Administration (B.S.): Human Resource Management concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric & Composition: English 121, 122 (6 hours)
Intensive Writing: English 277, 300, or 410 (3 hours)
Oral Communication: Theater and Speech 109 (3 hours)
Computer Literacy: BMGT 100 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and 11 (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or Option (b) Western Civilizations I, II, and III (9 hours)
Humanities and Fine Arts: 2 approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral and Social Sciences: 2 of the following courses: Psychology 101, Sociology 151, Political Science 101, Anthropology 152 (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 131 (3 hours)
Statistics: BMGT 211 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses
6 hours, one course being Psychology 101 and the other either Political Science 101, Sociology 151, or Anthropology 152
Mathematics 136
Economics 101,102
One course from English 277, 300, 410
28 hours common body of knowledge from the College of Business Administration including: Accounting 201,202,335; Finance 302; Management 212,311, 315,440,441; Marketing 313

Human Resource management concentration:
18 hours consisting of Management 330, 332, 360, 411, 434, 435,
12 hours chosen from Business Management 331, 410, 438 439, 459r and 498r (maximum 6 hour); Economics 317 and 425; Business Finace 337; Sociology 318; Human Services 300 and 405; Psychology 241, 242, 331, 406, and 451.
2.0 average in all management courses
A minimum of 54 hours of the 128 total must be taken at the 300-400 level
Electives to complete 128 hours
Maximum of 73 hours total accepted in College of Business Administration courses; i.e., at least 55 hours other than College of Business Administration courses must be completed
At least 50% of the business credit hours required for B.S. degree in Business Administration must be earned at UTC

'If exempted, student may take Mathematics 136.

Business Administration (B.S.): Industrial Management concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric & Composition: English 121, 122 (6 hours)
Intensive Writing: English 277, 300, or 410 (3 hours)
Oral Communication: Theater and Speech 109 (3 hours)
Computer Literacy: BMGT 100 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or Option (b) Western Civilizations I, II, and III (9 hours)
Humanities and Fine Arts: 2 approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral and SocialSciences: 2 of the following courses: Psychology 101, Sociology 151, Political Science 101, Anthropology 152 (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 131 (3 hours)
Statistics: BMGT 211 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Six hours selected from Political Science 101, Psychology 101, Sociology 151, or Anthropology 152
Mathematics 136
Economics 101, 102
One course from English 277,300,410
28 hours common body of knowledge from the College of Business Administration including: Accounting 201, 202, 335; Finance 302; Management 212, 311, 315,**440,441;** Marketing 313

Industrial management concentration:
21 hours including Accounting 305; Management 356, 360, 451, 452, 456; Engineering 457
9 hours selected from Engineering 354,458; Management 330,331,332,410,411, 435,438,439; Marketing 319,355; Economics 429
2.0 average in all management courses

A minimum of 54-hours of the 128 total must be taken at the 300-400 level
Electives to complete 128 hours
Maximum of 73 hours total accepted in College of Business Administration courses; i.e., at least 55 hours other than College of Business Administration courses must be completed
At least 50% of the business credit hours required for the B.S. degree in Business Administration must be earned at UTC.

'If exempted, student may take Mathematics F136.

MANAGEMENT COURSES

100 Computer Literacy for Business (3)
Introduction to the use of computers in business. Emphasizes spreadsheet and database applications, using microcomputer hardware and software. Also includes word processing and presentation software, Internet use, the basic structure and organization of a computer, ethical issues in computing, and the impact of computers on society. Every semester. Prerequisites: *Math placement level 20 or* MATH 106 *with a grade of Cor better.*

103 Introduction to Business and Entrepreneurship (3)
The general characteristics of a business, its role in society, and the objectives of business enterprise. All functional areas of a business are covered, in the context of both established businesses and entrepeneurial ventures. Fall and Spring. Junior and senior majors in *business administration will not receive credit for the course.*

199r Special **Projects** (**1-4)**
Individual or group projects. Every semester. *Maximum credit 4 hours.*

211 Statistical Methods for Business I (3)
Basic concepts of descriptive and inferential statistics including frequency, probability, sampling distributions, estimation theory, and introduction to hypothesis testing. Emphasis on business applications. Every semester.Prerequisite: *100,* Math placement *level 30 or Mathematics 131 or 145 or 150, with grade of "C" or better.*

212 Statistical Methods for Business II (3)
Advanced concepts of statistical inference including hypothesis testing for two populations, Contingency, Tables, Goodness of fit, Analysis of Variance, and Simple and Multiple regression Analysis. Emphasis is on computer solutions of business statistical applications. Every semester. *Prerequisites: 211 with a grade of C or better.*

220 **Microcomputing Applications in Administration** Systems (3)
Designed to familiarize students with office equipment to include word processing equipment and transcribing machines. On demand. Class 3 *hours, laboratory 2 hours. Prerequisite:* English 121 or one year *of high school typewriting.*

229 Office Procedures (3)
The role of the office employee in facilitating managerial operations. Considerations include improving human relations, information retrieval systems, handling correspondence, arranging schedules and itineraries, using communication media effectively, and simplification of office tasks. Spring semester alternate years. Prerequisites: English 121, 220.

309 Administrative and Information Management (3)
Management decisions involved with planning, organizing, directing and controlling the records of an organization. Analysis of criteria by which data and records are created, stored, retrieved, and disposed. Proedures for operation of manual and automated storage systems. On demand.

310 Business Communication (3)
An introduction and overview of verbal and nonverbal communication. Principles of writing, grammar, diction, and rhetoric as applied to business communication. Mechanics and psychology of business letters and short reports. Every semester. Prerequisites: English 121, 122.

311 Operations Management (3)
An introduction to the management of operations systems in both service and manufacturing environments. The focus of the course is on strategic issues in operations as well as on design and control of operating systems. Topics include both concepts and decision support models from such specialized areas as inventory management, quality management, production and capacity planning, forecasting, project management, and production control. Every semester. Prerequisites: 100, *211 or Math 210 or 307; Math 131; Economics 102; junior* standing.

315 Management Concepts, Theory, and Practice (3)
Principles of management focusing on the processes of strategic and intermediate term planning, organizing, human resource management, leadership, motivation, groups, communication and controlling. Topics also include the history of management as well as current trends in the discipline. Every semester. Prerequisite: *junior* standing.

330 Concepts in Organizational Behavior (3)
An advanced survey of theory and research concerning the behavior of people in organizations. Topics include personality, communication, perception, group dynamics, stress, change and organizational culture. Class is taught extensively using experimental exercises and cases. Every semester. Prerequisite: 315

331 Organizational Motivation and **Leadership** (3)
A comprehensive examination of leading theories of organizational motivation and leadership. An understanding of the processes affecting the behavior of employees is stressed. Emphasis will be placed on directed exercises demonstrating the implementation of concepts learned from the class material. Every semester. Prerequisite: 315.

332 **Human Resource Management** (3)
Introduction to human resource management principles and practices, including equal employment opportunity, job analysis, staffing, performance appraisal, compensation programs, and employee relations. Every semester. Prerequisite: 315

340 Innovation and Creativity in Business (3)
The development of creative thinking skills and creative approaches to decision making as they relate to innovation and the recognition of opportunity. Issues revelant to both entrepeneurial ventures and established businesses will be covered. Spring semester. Prerequisite: Junior *standing*

350r Management Internship (3)
A supervised work experience program designed to strengthen the student's technical competencies and fundamental knowledge in management. Every semester. Prerequisite: *permission of department head.*

356 Management Science (3)
Concepts and applications of quantitative (mathematical) techniques, and computer analysis for business decision making under deterministic and stochastic conditions. Topics include mathematical model formulation, linear programming, integer programming, goal programming, transportation problems, assignment problems, network models, project scheduling, decision analysis, queuing, dynamic programming, and Markov processes.Fall semester. Prerequisite: 212; Mathematics 136; junior standing.

360 Management Information Systems (3)
Systems and information concepts; systems in organizations; systems tools; decision making, database concepts; information systems analysis and design; integrative business project that includes problem identification, definition, requirements analyses, system design, and implementation. Every semester. *Prerequisites: 100, 315.*

410 Industrial Relations (3)
Union-management relations. Topics include labor taw, collective bargaining, grievance administration, arbitration, and dispute resolution techniques. Summer semester. *Prerequisites: 332*

411 Government Regulation of HRM (3)
An examination of laws and government guidelines regulating the employer-employee relationship with regard to hiring, discharge, and conditions of employment. Topics include sexual harassment, discrimination, and employee privacy. Fall and spring semesters. Prerequisites: *332*.

420 Managerial Reporting (3)
A study of business reporting, both written and oral. Includes proposal writing, feasibility studies, progress reports, formal analytical reports with graphic presentations. Special emphasis is placed on interpersonal, intercultural, intrapersonal, and computer communication. Management concepts of business ethics and problem analysis are integrated with communication process and theory. On demand. Prerequisite: 100; ENGL *122;* junior standing.

434 HRM Staffing (3)
This course will examine the procedures used by employers to hire and train employees. Students will learn how organizations seek to improve their effectiveness by attracting, selecting) promoting, and developing their employees to ensure that each job is staffed by a fully capable individual. Fall semester. Prerequisite: *332*.

435 Compensation Management (3)
A survey of pay and benefits practices used by organizations to control labor costs and motivate employees to achieve strategic organizational goals. Traditional compensation techniques based on job evaluations, as well as more contemporary techniques such as group-based reward practices, will be explored. Spring semester. Prerequisites: *332*.

438 International Management (3)
A study of issues, concepts, and skills necessary for managerial success in international companies. Particular attention is given to exploring how culture influences management practices in overseas operations. Every semester. Prerequisite: 315.

439 Japanese Management (3)
A comprehensive overview of Japanese management and organizational practices, with an attendant focus on the relationships between Japanese cultural and societal institutions and Japanese managerial practices. The problems of U.S.-Japanese joint-ventures, American and Japanese expatriates, and trade disputes will also be covered. On demand. Prerequisites: 315 or equivalent.

440 Strategic Management (3)
This capstone course integrates all functional business courses. Using cases, students will analyze management decisions and formulate future strategies for business. A mix of small and large businesses as well as private and publicly-trades businesses will be emphasized using cases. Strategic management theory will emphasize planning from mission setting and goal development through implementation, evaluation and control. Small group activities, experimental activities, and student team presentations on future strategies for selected companies and industries. Every semester. *Prerequisites:* 311,315; Finance 302; Marketing 313; senior standing. May not *be used for graduate* credit.

441 Senior Seminar (1)
The practices, policies, and administration of business examined by top level executives of a variety of businesses. The course considers a wide variety of topics from the top management viewpoint with a view towards broadening the interest and horizon of the student Fall and spring semesters. Course graded on pass-fail basis. Prerequisite: senior standing.

451 Production Planning and Control (3)
Explores concepts and techniques utilized in solving problems associated with production planning and control. Master production scheduling, material requirements planning, production activity and control, capacity requirements planning, constraint theory, and current topics will be addressed to broaden the student's working knowledge of production planning and control management. Fall semester. Prerequisite: 311 or permission o/instructor.

452 Supply Chain Management (3)
A study of the problems and practices of operations and materials management. Topics will include: materials acquisition; classical inventory systems; demand management; aggregate planning; material logistics systems; and current topics in materials management including just-in-time, zero inventories, and group technology. Spring semester. Prerequisite: 311 or permission *of* instructor.

456 Business Forecasting (3)
A study of forecasting processes and the relationships pf forecasting to other management activities. Uses problems and cases to study significant forecasting methodologies at the firm as well as industry level. Emphasizes objective methods and modeling. Extensive use of computer applications. Spring semester. Prerequisites: 311, BFIN 102, BMKT 313, or permission *of the* instructor.

483 Study Abroad: Management Concepts (3)
The purpose of the course is to explore the differences in managerial concepts and techniques in selected cultures through an intensive study and international travel experience. An examination of successful operations techniques and management strategies used by international organizations will supplement the practical and theoretical understanding of international business and global competition. Through a combination of textbook concepts, outside readings, plant tours, guest lectures, class discussions, and case studies students will be able to compare various operation processes and management procedures and be able to develop and evaluate plans for adapting organizational processes within the context of an international business environment. Prerequisite: 311,315 and senior standing or permission *of* instructor.

495r Department Honors (1-3 hours per terms, 4 hours for the two terms)
Every semester. See "Departmental Honors," page 36.

497 Research (1-3)
Every semester.

498r Individual Studies (1-3)
Every semester.

499r Group Studies (1-3)
Every semester.

Marketing

Professor Ettkin, *Head*

The marketing curriculum is designed to prepare students for careers in both the public and private sectors as well as for graduate studies.

Business Administration (B.S.): Marketing concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric & Composition: English 121, 122 (6 hours)
Intensive Writing: English 277, 300, or 410 (3 hours)
Oral Communication: Theater and Speech 109 (3 hours)
Computer Literacy: BMGT 100 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or Option (b) Western Civilizations I, II, and III (9 hours)
Humanities and Fine Arts: 2 approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral and Social Sciences: 2 of the following courses: Psychology 101, Sociology 151, Political Science 101, Anthropology 152 (6 hours)
Natural Sciences: 2 approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 131 (3 hours)
Statistics: BMGT 211 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

6 hours selected from Political Science 101, Psychology 101, Sociology 151, or Anduoplogy 152
MauSematics 136
Economics 101, 102
One course from English 277, 300, 410
28 hours common body of knowledge from the College of Business Administration including: Accounting 201, 202, 335; Finance 302; Management 212, 311, 315,440, 441; Marketing 313

Marketing concentration:
15 hours including Marketing 365, either 361[2] or 362[2],450,461, and Management 360
12 hours chosen from Marketing 318,319,355,361,362,363,364,366,415,417, 430,442; Economics 425,429; Management 340,356
2.0 average in all marketing courses
A minimum of 54 hours of the 128 total must be taken at the 300-400 level
Electives to complete 128 hours
Maximum of 73 hours total accepted in College of Business Administration courses; i.e., at least 55 hours other than College of Business Administration courses must be completed
At least 50% of the business credit hours required for the B.S. degree in Business Administration must be earned at UTC.

[1]If exempted, student may take Mathematics 136.
[2]Either 361 or 362 is required. The course not chosen to meet this requirement may be taken as an elective.

MARKETING COURSES

313 Basic Marketing (3)
This course examines the principles and methods involved in the movement of good and services from producers to consumers or end-users. In particular, the course focuses on strategies the firm may use to take advantage of market opportunities. Every semester. *Prerequisites: Economics 102; junior standing.*

318 International Marketing (3)
Examination of the problems and opportunities in marketing across national borders. Major topics covered in this course are: description of major world markets, including cultural and political implications of target market selection; market entry alternatives; marketing strategy and implementation issues in a global environment. Spring semester alternate years. *Prerequisite .313.*

361 Principles of Selling (3)
Basic principles of selling and their practical application to sales situations. The economic and psychological motivations underlying customer purchases and product performance as they affect sales of industrial and consumer goods and services. Fall and spring semesters. *Prerequisite: 313.*

362 Advertising (3)
The nature and role of advertising in society and in a firm's overall promotion plan. Foundatioon concepts on target marketing, positioning, consumer behavior, and communication processes are reviewed, as well as specialized topics in setting the advertising budget and objectives, planning the advertising message, media plan, and other elements of promotion strategy. The history and organization of the advertising industry are covered. Fall and spring semesters. Prerequisite: *313.*

363 Sales Management (3)
Sales department organization and its relation to other departments; the sales manager; sates planning and forecasting; territories; selection and training of salespeople; sales policies; analysis and control of distribution costs; die organizing, controlling, motivation, and evaluation of the field sales force to accomplish market objectives. Summer semester. *Prerequisite: 313.*

364 Retailing (3)
Focuses on strategy development and execution in marketing consumer goods and services through retail organizations. In addition to such topics as target market selection, location decisions, and merchandising issues, vendor relations, trade management, and emerging retail trends will be covered. Spring semester. *Prerequisites: 313, junior* standing.

365 Consumer Behavior (3)
Consumer behavior is an analysis of internal and external influences on consumer buying behavior. Internal influences include perception, motivation, personality, and attitudes, while external influences include culture, families, social class, and situations. The consumer decision making process is also evaluated with reference to these influences. Spring semester. Prerequisites: 313

366 Principles of Selling Real Estate (3)
The study of the principles of selling real estate. Presentation of communication and persuasion research and its application to the selling of residential and non-residential real estate. Spring semester alternate years. *Prerequisite: 313 or permission of instructor.*

415 Business to Business Marketing (3)
Principles and strategies used in the marketing of products and services to businesses and initial customers. Covers the differences between organizational buyers and ultimate consumers and the resulting effects on marketing strategy. The course also covers the "buying" side of business to business marketing by examining the purchasing function within organizations. This includes the planning, implementation, and control of purchasing operations, inventory management, and buying for institutions and government agencies. Fall semester alternate years. *Prerequisite: 313.*

417 Strategic Distribution Management (3)
Principles and strategies used to design and manage the distribution channels used in the movement of goods and services from producers to users. Includes channel management issues such as determining channel type, coverage and service levels, costs, and conflict management within the channel. The logistics of physical distribution are also addressed. This includes the integration of transportation, warehousing, order processing, inventory control, and location decisions in the effective movement of products and services. Spring semester alternate years. Prerequisite: 3/3.

430 Entrepreneurship and Enterprise (3)
An in-depth study of the lifestyle of the entrepreneur. Actual business opportunities identified and evaluated with group feasibility projects. The relationship of the entrepreneur to the formation and growth of the enterprise: Fall semester. Prerequisites: 313

442 Services Marketing (3)
- An examination of the unique aspects of marketing of services. Appropriate for students seeking careers in health and human services, banking and finance, education and training, small business, sports management, information technology, or other service industries. The course investigates the characteristics of services and service customers, strategic differences in the marketing of goods versus services, service standards, and service quality measurement and management. In addition, the.importance of service in providing custiomer satisfaction. Fall semester. Prerequisites*: 315 and three additional* hours in Marketing or permission *of* instructor.

450 Marketing Research (3)
Course emphasizes marketing research as a decision making tool in opportunity identification and problem analysis. In addition to secondary data analysis, research methodologies and procedures for additional.data capture will be covered. An application-oriented approach will address all research phases from problem identification to presentation. Fall and spring semesters. Prerequisites: 313, Management 212, and at least 9 hours *of* marketing *courses* or permission *of* instructor.

461 Marketing Problems (3)
The major marketing problems of representative firms, including manufacturers, wholesalers, and retailers. A case course dealing with actual business problems in all phases of marketing activity. Every semester. Prerequisite: 313, plus 6 additional *hours* in Marketing or permission *of* instructor.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497 Research (1-3)
On demand.

498r Individual Studies (1-3)
On demand.

499r Group Studies (1-3)
On demand.

College of Education & Applied Professional Studies

Professor M. Tanner, *Dean*

The primary goal of the College of Education &. Applied Professional Studies is twofold: to prepare qualified people to be professional leaders in various roles within educational institutions, both public and private, and to prepare qualified personnel for careers in selected professional fields unrelated to school licensure.

All eligible teacher licensure programs through the master's level are fully accredited by the National Council for Accreditation of Teacher Education (NCATE) and the Tennessee Department of Education.

Successful completion of all degree and licensure requirements of any undergraduate program administered by the college, excluding selected program concentrations offered in the Departments of Human Ecology and Exercise Science, Health, &. Leisure Studies, qualifies the graduate for initial licensure in Tennessee, provided the student scores on the PRAXIS II tests at or above the minimum required by the Tennessee Board of Education at the time of application for initial licensure.

The college is organized into two schools, including four academic/administrative units for academic programming, communications, and administrative accountability. Each unit has a head who serves as the official spokesperson and administrative officer responsible for all programs, faculty, and activities assigned **to** that particular unit.

The programs in education are designed to provide preparation for individuals seeking to enhance their ability to perform effectively in a variety of leadership roles in educational settings. While tied to licensure or credentialing in most cases, in every case the program seeks to prepare a thoughtful, informed practitioner of learning and leading. The course work shaped around this reflective practice model constitutes an approach that is modeled on a coherent set of beliefs about how best to prepare students to enter educational settings.

School of Educational Leadership:

Teacher Preparation Academy
Professor T. Bibler, Head

Challenger Center
T. Patty, Acting *Director of Operations*

Office of Field Services
Assistant *Professor* V. Copeland-Rutledge, *Chair TEP Committee*
M. Farrell, *Certification Officer*

Southeast Tennessee Professional Development Center
S. Abbate, Director

Graduate Studies Division
Associate Professor T. Lease, *Head*

School of Applied Professional Studies:

Exercise Science, Health, and Leisure Studies
Professor D. Cundiff, Head

Human Ecology
Professor T. Bibler, Acting *Head*

Children's Center
A. Gamble, *Director*

Courses of Study .

Undergraduate-r-The college offers approved undergraduate programs leading to the Bachelor of Science degree and eligibility for teacher licensure in Tennessee and in those states which grant reciprocity privileges to graduates of institutions accredited by NCATE. Courses of study include:

Early Childhood (PreK-4), see Human Ecology
Middle Grades Education (5-8)
Art Education (K-12)
Music Education (K-12)
Exceptional Learning (K-12)
Secondary Education (7-12) with concentrations in English, foreign languages (French, Latin, Spanish), mathematics, natural sciences (biology, chemistry, earth and space science,
physics), and social sciences (economics, geography, government, history)
Physical Education (K-12)
Health Promotion (K-12)
Theatre Education (K-12)

Additional Courses of Study

In addition to programs leading to initial teacher licensure or endorsement, the college provides courses of study in Human Ecology (child & family studies, interior design, and food & nutrition) and Exercise Science, Health, and Leisure Studies (adult fitness, leisure studies, sports administration, and community health education).

Graduate — The School of Educational Leadership, through the Graduate Studies Division, offers NCATE accredited and Tennessee approved programs which lead to the Master of Education (M.Ed.) degree and the Master of Science (M.S.) degree with a concentration in School Psychology or Athletic Training. The Educational Specialist in Instructional Technology is also offered. For further information refer to the UTC Graduate Bulletin, the Office of Graduate Admissions, and /or the Graduate Studies Division within the college.

Also, any student desiring to pursue doctoral-level study in education or to gain admission to candidacy for the Doctor of Education (Ed.D.) degree granted by The University of Tennessee, Knoxville, may complete all degree requirements at the UTC campus. For further information contact the director of the UTK/UTC Graduate Education Center located in 120 Race Hall.

Admission to the Teacher Education Program (TEP)*

Applicants who demonstrate qualifications and characteristics reasonably expected for initial licensure and entry into the teaching profession will be considered for admission to the teacher education program. Selection of qualified students is usually made on the basis of application during the sophomore year, with the exception of transfer students who are required to complete a semester of residence at UTC before their applications will be reviewed by the TEP Committee. Applications must *be filed no later than the first semester of the junior year.* A student who has not been officially admitted to the TEP will not be permitted to register for certain 400-level professional education courses. Prior to formal application to the TEP, freshman, sophomore, and particularly transfer students must consult with an adviser in the College of Education & Applied Professional Studies to plan their programs. This advisory procedure also applies to students (including post-baccalaureate and graduate) seeking initial teacher licensure or endorsement.

A post-baccalaureate, graduate, or undergraduate transfer student must satisfy official TEP admission standards set by UTC, the Tennessee Department of Education, and the College of Education and Applied Professional Studies. A student who has earned a degree or credit hours at another institution may be required to enroll in additional courses, including the student teaching experience or practicum, to verify competency in those teaching fields for which initial teacher licensure or endorsement is being requested through a UTC recommendation.

To be considered for admission to the TEP*, a student must:

1. File a formal application signed by a College of Education & Applied Professional Studies faculty advisor. Application forms may be obtained from Education Information Center (EIC) in 203 Hunter.
2. File the complete official health report signed by a licensed physician. Form may be obtained in 203 Hunter Hall.
3. Earn a minimum 2.5 cumulative grade point average, a 2.5 average on all courses taken at UTC, a 2.5 in Education courses with nb grade lower than C, and a 2.5 in content area courses with no grade lower than C.
4. Complete the Pre-Professional Skills Test (PPST) or an approved equivalent and earn at least the minimum score on each section as mandated by the Tennessee Board of Education for the particular year in which the battery is taken.
5. File the completed speech and hearing report. Form may be obtained in 203 Hunter.
6. Submit all other appropriate information (essay and resume) to the EIC in 203 Hunter Hall prior to scheduling the TEP interview.
7. Complete an interview and receive a positive recommendation from the TEP interview committee.
8. Show evidence of reasonable physical fitness, emotional maturity, high moral character, and commitment to professional education. Violations of the honor code or student behavior policies as stated in the current *UTC* Student *Handbook* may be reviewed by the TEP Committee and may impact the final decision regarding admission to the TEP and/or approval for student teaching experiences.

•Final responsibility *for* ensuring that *these requirements are met prior to being* admitted to student teaching rests with the student.

Applicants will receive notification of their TEP status following the interview. An applicant who is denied admission will be notified of the deficiencies and of suggested resources or activities which may correct these. Decisions of the TEP Committee may be appealed. Information may be obtained from the TEP Committee chair.

Tests **for Admission to Teacher Education Programs**
Individuals seeking admission to teacher education programs in Tennessee must pass the Pre-Professional Skills Test (PPST/ Praxis I) or the CBT equivalent. The Board approved two additional options for admission of teacher candidates. Applicants who have attained an ACT composite test score of 21 or above or a composite test score of 22 or above on the Enhanced ACT or who have attained a combined verbal and mathematics score on the SAT of 920 or above or 1020 or above on the Recentered SAT shall be exempt from the PPST. Refer to the Education Information Office in 203 Hunter Hall, the Certification Office in 211A Hunter, or the Testing Center in 258 Hooper Hall for test application forms and administration dates for each year.

UTC is committed to strict adherence to Tennessee Board of Education requirements regarding official admission to the TEP. An applicant to the TEP may take the PPST or CBT an unlimited number of times.

For full teacher licensure^ the Tennessee Board of Education requires the achievement of state-approved minimum scores on specified tests of the Praxis II Series. Information about the tests may be obtained from the Certification Office in 211A Hunter Hall or the UTC Testing Center in 258 Hooper Hall.

Admission **to Student** Teaching*
The application for admission to the student teaching semester must be filed in the Education Information Center (203 Hunter Hall) approximately six months preceding the actual experience. If a student plans to student teach during the spring semester of an academic year, the application must be completed and on file no later than September 1 of the preceding year. For the fall semester of an academic year, the application should be completed and on file no later than the preceding March 1.

Application for student teaching is not necessarily contingent upon official admission to the TEP; therefore, a student should apply for student teaching to comply with the required deadline dates. However, a student will not be permitted to actually student teach until he or she has satisfactorily met *all requirements* for admission to the TEP.

Before admission to student teaching, the student must:[1]

1. Secure official admission to the TEP.
2. Submit student teaching application with signature of assigned faculty advisor to the EIC in 203 Hunter Hall.
3. Satisfactorily complete appropriate professional education and endorsement area courses.
4. Satisfactorily complete at least 90 percent of course work in content area(s). If the percentage of course work completed is questionable, the Teacher Preparation Appeals Committee and appropriate unit head within the college will make the decision.
5. Receive positive recommendation of the major department(s). For a degree candidate in Secondary Education or K-12 initial certification, the major department is that in which die teaching area concentration is based.
6. Earn a minimum grade point average of 2.5 on courses completed at UTC, a cumulative 2.5 grade point average on all courses, a 2.5 grade point average in professional education courses with no grade lower than C, a 2.5 grade point average in content area courses with no grade lower than C, and senior standing.
7. Demonstrate competency in manuscript and cursive handwriting. This requirement applies to all Early Childhood and Exceptional Learning majors.
8. Submit five copies of a resume with cover letter to the EIC in 203 Hunter Hall.

**Final responsibility for ensuring that these requirements are met prior to being admitted to student teaching rests with the student.*

All majors seeking teaching licensure will student teach for a semester. Placement of a student will be at clustered sites and will involve two different schools. The student will experience a variety of grade levels at all sites.

When appropriate and educationally feasible, the secondary student teacher may teach a subject matter concentration other than that for which he or she has been professionally prepared.

Student teaching is evaluated on a satisfactory/fail basis. A student not satisfactorily completing student teaching will receive a failing grade and may have the opportunity to repeat the course.

Final authority for the student teaching placement and teaching assignment rests with the Teacher Preparation Appeals Committee and the department head in the Teacher Preparation Academy. As a general rule, a student is neither located in the school from which he or she recently graduated nor placed under the supervision of a family relative.

Student Teaching Orientation
General orientation seminars concerning student teaching and the professional education semester are held for all prospective student teachers preceding the student teaching experiences semester. Non-attendance could delay the student teaching semester. Seminars are also held during the student teaching semester, and attendance is mandatory.

'Under special circumstances, policies, procedures, and requirements for admission to the TEP and student teaching may be waived or revised at the discretion of the dean of the College of Education and Applied Professional Studies.

Recommendation for Licensure
The School of Educational Leadership will recommend licensure for only those students who have successfully completed one or more of the UTC initial licensure or endorsement programs approved by the Tennessee Department of Education. Application for a teacher's license should be completed prior to graduation. Application forms may be obtained from the Office of Records, 128 Hooper Hall.

Tennessee regulations stipulate that the applicant for an initial teaching license or additional endorsement must be recommended by the designated certifying officer and dean of an approved teacher training institution. To receive this recommendation, the applicant must:

1. Obtain official admission to the TEP.
2. Earn a minimum grade point average of 2.5 in courses completed at UTC, a cumulative 2.5 grade point average on all courses, a 2.5 grade point average in professional education courses with no grade lower than C, a grade point average of 2.5 in content area courses with no grade lower than C.

3. Satisfactorily complete the student teaching internship or practicum experience. ,
4- Fulfill specific departmental requirements in the area of concentration.
5. Achieve minimum scores on the Praxis II tests mandated by the Tennessee Board of Education (Full licensure will not be granted without fulfillment of this requirement).

These criteria apply to all students desiring an initial licensure or certification recommendation from UTC.

*FinaI responsibility *for satisfying all requirements for licensure recommendation by UTC rests with the individual applicant.*

A person who does not currently hold or has never held a valid professional teacher's certificate or license must satisfactorily complete a UTC approved program or clearly document and demonstrate evidence of satisfactory knowledge and skill competencies prescribed for Tennessee Licensure to earn the official UTC recommendation for licensure. To learn of the particular endorsement requirements, a student should inquire through the appropriate unit office and the Certification Officer. Written guidelines for earning UTC approval in the various endorsement areas may be obtained from the respective unit head responsible for the licensure endorsement area being sought.

Any student who anticipates teaching outside Tennessee is strongly encouraged to request a check sheet of certification requirements from the Department of Education Office of Certification for the state in which he or she plans to teach. Course and competency requirements to satisfy out-of-state certification standards may be in addition to Tennessee licensure requirements and UTC approved degree requirements.

Graduation with a master's degree from UTC does not guarantee licensure in any specific area. However, in some instances a student may satisfy all the Tennessee requirements for licensure by completion of a state approved master's degree program at UTC.

Application for Teacher Licensure/Certification, Endorsement*

The Tennessee Department of Education Office of Teacher Licensing requires that an application for any type of initial licensure or additional endorsement finally approved by that office must be initiated through a Tennessee institution with an approved program. This applies to in-state applicants for licensure.

*UTC *does not guarantee* that satisfactory completion of a program listed in the UTC *Bulletin* at the time of a student's initial admission to the University will meet all the licensure or certification requirements *at the time* the person *applies for initial licensure.* This means that UTC will recommend only those applicants who have met all the licensure and certification requirements effective at the time of the University recommendation.

Any student who completes a certification program at UTC, regardless of whether he or she intends to teach in Tennessee, should apply immediately for Tennessee licensure since many states require an applicant to be certified or licensed in the state where he or she graduated and/or completed an initial certification program. Licensure standards in various states change frequently; hence, it is prudent to apply for licensure immediately upon graduation or program completion.

A student or any other person seeking teacher licensure or endorsement recommendation from UTC is strongly encouraged to confer with the appropriate faculty advisor(s) within the College of Education and Applied Professional Studies upon entry into the TEP or as soon as possible to gain faculty assistance in planning course schedules and to learn of the requirements effective at that time or at the projected date of applicant's graduation.

Applications for Tennessee teacher licensure are available in the Records Office. Completed applications accompanied by official transcripts are reviewed by the UTC Certification , Officer and forwarded to the Tennessee Department of Education Office of Teacher Licensing. The initial (Apprentice) teaching license is valid for five years and is renewable. After three years of successful teaching in a Tennessee public school, the Apprentice License becomes a Professional License which is valid for 10 years and is renewable.

Clarification of the requirements should be requested from the appropriate unit head or the Certification Officer.

Career Education Resource Library

The Career Education Resource Library contains various materials for use by students in counseling, practitioners in the field, and teachers who are implementing career education in their curriculum. The center contains career games, sound filmstrips, the complete *Information Needed for Occupational Entry* system, numerous cassettes, and other pertinent career publications and materials. Materials are geared for grades K-12. The library is located in 209A Hunter Hall.

Science and Environmental Education Resource Center

The School of Educational Leadership provides instruction and academic support services for pre-service and in-service teacher education programs. Instructional materials focusing on environmental and energy education along with professional consultants are also available. The center is a charter member of the John Judy Environmental Education Consortium and is located in the Challenger Center at 855 E. 5th Street.

Certification Officer

The Certification Officer is responsible for processing initial applications and approving additional endorsements for licensure to teach in Tennessee. Students should refer questions concerning licensure to the Certification Officer. This office (211A Hunter Hall) can also provide assistance in processing certification applications to states other than Tennessee.

Art Education (B.S.)

General Education (see pages 29-31 for list of approved courses) *
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: ENGL 279 (3 hours)
Oral Communications: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours)] OR Option (h) World Civilizations I, II, and III (9 hours)
Humanities and Fine Arts: ART 214, 215 (6 hours)
Behavioral and Social Sciences: PSY **101,** plus (1) Social Science (6 hours)
Natural Sciences: (Two hours) approved natural science courses, at least one

including a laboratory component (7-8 hours)
Mathematics: Math 123 (3 hours)
Statistics: One approved statistics course (3 hours)
Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

Philosophy 201
Philosophy 336
Psychology 221
54 hours art including 101,102,103,105,106, 203,205, 207, 214, 215, 233, 323,324,490; 6 hours from Art 314, 315,414,431,432; and 6 hours in one studio concentration
25 hours in professional education including Education 201,321,433,444r, and Educational Psychology 400
For graduation: 2.0 average in art and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 average cumulative, 2.5 average at UTC, 2.5 average in education courses with no grade lower than C, and 2.5 in content area with no grade lower than C

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Middle Grades Education (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121 and ENGL 122 (6 hours)
Intensive Writing: 3-hour approved course (3 hours)
Oral Communication: Theatre & Speech 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Western Humanities I and II (6 hours) and Anthropology 208 (3 hours)
Humanities and Fine Arts: Two of Art 301, Music 111, Theatre & Speach 111 or 115(6 hours)
Behavioral & Social Sciences: Economics 102, Political Science 101 (6 hours) *J*
Natural Sciences: General Science HI and 181 and Environmental Science 150 (8 hours)
Mathematics: Mathematics 214 (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major Core (28)

Exercise Science, Health, and Leisure Studies 447, English 229 & 410, History 204, Geography 103, University Studies 311 & 440.

Related Courses (3)
Human Ecology 445

36 hours from the College of Education and Applied Professional Studies including Education 201,306, 323,400, 418, 423, one of 450, 451, 452, or 454,446, and Human Ecology 242.

One of the following concentrations (17-18)
Mathematics (17 hours)
Mathematics 131,136,145; Computer Science 150; Astronomy 102/182*
English (18 hours)
English 203, 211,212, 213,214, 300
Social Science (18 hours)
Political Science 102; Geography 101; Economics 101; History 103, 104,203
Natural Science (17 hours)
University Studies 401; Biology 121,122; Chemistry 121,123; one additional course from Astronomy 102/182*; Geology 111/181; Physics 103/183,104

One of the following areas of emphasis (9-10)
Note: A student must select an area of emphasis different from his concentration.
Mathematics (10 hours)
Mathematics 131, 136; Computer Science 150 or Astronomy 102/182*
English (9 hours)
English 211 or 212, 213 or 214,300
Social Science (9 hours)
Geography 101; History 203; one additional course from Economics 101, History 103,104, Political Science 102
Natural Science (9 hours)
University Studies 401; Chemistry 121/123; one additional course from Biology 121,122, Physics 103/183, 104, Geology 111/181, Astronomy 102/182*

** May not be used* m *both concentration and area of emphasis.*

For graduation: 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area course work with no grade lower than C. (see advisor/check sheet for specific courses).

Minimum of 30 hours of 300 and 400 level courses
Electives to total 128 hours

Music Education (B.M.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, 11, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, other than Music 111, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

Psychology 221 or 222
Music 103,104,107,108,131*, 132*, 141*, 142*. 203,204,207, 208,221, 303,315,316,321,336,432
18 hours applied music including: Large ensemble participation (appropriate to the major) required each semester of residence, with exception of student teaching semester, minimum of 7 hours credit. (Minimum of 4 semesters of chorus required for the vocal concentration); 7 semesters (7 hours) primary applied instrumental or vocal study; *Music 131,132,141, 142 for piano proficiency (4 hours). All Music Education majors must take a Piano Proficiency Examination as described in *The Music* Deportment *Undergraduate* Student Handbook.
Music Education majors are required to present a half-recital or full recital in the senior year. The student must be registered for the appropriate instruction course the semester of the recital.
One of the following concentrations

1. Instrumental: Music 223; 224; 225; 226; 325, 328

2. Vocal Music: 135, two semesters of 307 or 326; 251r or 133 and 134, 222,310,333,334,336

Seminar is required each semester of residence. A minimum of 7 semesters with a grade of "Satisfactory" is required.
22 hours from the College of Education and Applied Professional Studies including Education 201,433,444r; and EPSY 400
For graduation: 2.0 average in music and 2.0 average in College of Education

and Applied Professional Studies courses
For licensure: 2.5 average cumulative, 2.5 average at UTC, 2.5,2.5 average in education courses with no grade less than C , 2.5 in content area course work with no grade lower than C.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 133 hours for vocal, 135 hours for instrumental
Total hours to exceed 128 minimum

Secondary English (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121 & 122 (6 hours)
Intensive Writing: 3 hours approved course. (3 hours)
Oral Communication: Theater & Speach 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Western Humanities I and II *and* Anthropology 208 (9 hours)
Humanities and Fine Arts: Music 111 6k Art 111 (6 hours)
Behavioral & Social Sciences: Psychology 101 and one approved Behavioral/Social Science course (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and Related Courses
History 203, 204, and 323 or 324
Foreign Language-one year of foreign language at college level (6-8)
36 hours English including English 203, 207, 211, 212,213, 214,229,300,361, 410,460; Humanities 385r
34 hours from the College of Education and Applied Professional Studies including Education 201,321,400,418,433,443,450 and Human Ecology 242
For graduation: 2.0 average in English and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower than C.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Secondary Foreign Language (B.S.): French, Latin, or Spanish Concentrations:

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121 & 122 (6 hours)
Intensive Writing: 3 hours approved course. (3 hours)
Oral Communication: Theater & Speach 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: History 103, 104, 105 (9 hours)
Humanities and Fine Arts: Art 111 or Music 111 and one approved Humanities/Fine Arts course (6 hours)
Behavioral & Social Sciences: Psychology 101 and one approved Behavioral/Social Science course (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours) '
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and Related Courses

Anthropology 208
Behavioral/Social Sciences elective courses to total 6 hours
Arts and Sciences elective

One of the following concentrations
French:
24 hours of French including 311,312,321,331, 332,401,430
Spanish:
24 hours of Spanish including 311,312,321, 322,331,401,430
Latin:
27 hours of Latin and Classics including 201, 202,310,312,350,351,425; Classics 310

All concentrations
34 hours from the College of Education and Applied Professional Studies including Education 201,321,400,418,431,433,443, Human Ecology 242
For graduation: 2.0 average in foreign language and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower than C.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Exercise Science, Health, and Leisure Studies

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Secondary Mathematics (B.S.):

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121 & 122 (6 hours)
Intensive Writing: 3 hours approved course. (3 hours)
Oral Communication: Theater & Speach 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Western Humanities 1 and 11 *and* one approved Non-Western Cultures and Civilizations course (9 hours)
Humanities and Fine Arts: One approved Humanities/Fine Arts course and one approved Fine Arts course (6 hours)
Behavioral & Social Sciences: Psychology 101 and one approved Behavioral/Social Science course (6 hours)
Natural Sciences: Physics 230/280 and one additional approved Natural Science course (7-8 hours)
Mathematics: Mathematics 151/152 (4 hours)
Statistics: Mathematics 307* or 407* (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and Related Courses
Computer Science 150
Physics 231

40 hours of mathematics including Mathematics 161,162, 212, 245, 255,295, 321,350,430,452 AND Mathematics 307 plus 9 hours electives in mathematics
or
Mathematics 407 and 408 plus 6 hours electives in mathematics
34 hours from the College of Education and Applied Professional Studies including Education 201,321,400,418,433,443,451, Human Ecology 242
For graduation: 2.0 average in mathematics and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower thanC.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

* If certified for general education statistics

Secondary Natural Sciences (B.S.):

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121 & 122 (6 hours)
Intensive Writing: 3 hours approved course. (3 hours)
Oral Communication: Theater & Speach 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Option a: One approved course in Western Humanities 1 and II *and* one approved Non-Western Cultures and Civilization course (9 hours)
Humanities and Fine Arts: One approved Humanities/Fines Arts course and one approved Fine Arts course (6 hours)
Behavioral & Social Sciences: Psychology 101 and one approved Behavioral/Social Science course (6 hours)
Natural Sciences: Biology 121 & Chemistry 121/123 (8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and Related Courses

Required of all secondary natural science majors:
Chemistry 122
Physics 103/183, 104
Geology 111/181
Astronomy 102/182
University Studies 401

34 hours from the College of Education and Applied Professional Studies including
Education 201, 321,400,418,433,443,454 Human Ecology 242
All secondary natural sciences majors must complete at least one of the following concentration areas:
Biology concentration
Mathematics 131 and 136 or 145 and 151 and 152
Biology 122, 208, 209, 325, 326
One course from each of the following three areas:
Ecology: Biology 306 and 307 or 416
Evolution: Biology 315, 403, 450
Physiology: Biology 304, 323, 463
PLUS One course from either of the following two areas:
Botany: Biology 207, 352
Zoology: Biology 312, 313, 342

Chemistry concentration
Biology 122
Mathematics 131 and 136 or 145 and 151/152
Chemistry 311,341, 342,351/353, 352/354,466

Earth and Space Sciences concentration
Mathematics 131 and 136 or 145 and 151/152
Geology 112/182, 241, 242, 303, 321, and 480 or 490
Environmental Science 482
Geography 101

Physics concentration
Mathematics 151/152, 161/162
Biology 122
Geology 112/182
18 hours of physics including: Physics 231, 232, 318

For graduation: 2.0 average in natural sciences and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower thanC.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Secondary Social Sciences (B.S.):

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121 & 122 (6 hours)
Intensive Writing: 3 hours approved course. (3 hours)
Oral Communication: Theater & Speach 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: History 103, 104, 105 (9 hours)
Humanities and Fine Arts: Religion 211 and one approved Fine Arts course (6 hours)
Behavioral & Social Sciences: Psychology 101 and Economics 101 (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and Related Courses

Required of all secondary social sciences majors:
History 203, 204, 343
Geography 101, 103
Economics 102
Political Science 101

34 hours from the College of Education and Applied Professional Studies including Education 201,321,400,418,433,443,452, and Human Ecology 242

All secondary social sciences majors are required to complete at least one of the following concentration areas:

Economics concentration
Political Science 102
Anthropology 208
Economics 324, 325, 453
18 hours of economics electives from 301, 306, 317,404,417, 425,426, 429,430,444,450,452,455,460,465,470,495r, 497r, 499r, Accounting 201, or Finance 302 (BACC 202 is a prerequisite)

Geography concentration
Geography 104
Geology 111/181
Environmental Science 150, 151
one course from each of the following groups:
(a) Geography 206, 250
(b) Geography 303,305,465,466
(c) Geography 407,409,415
Electives to total 20 hours in geography

History concentration
Anthropology 208
History 301
One course from each of the following areas:
(a) United States - History 331, 332,335,336, 337,338,341, 346
(b) European - History 310,311, 312, 313,314,315,317,318,319, 323, 324,327,328
(c) Non-western - History 364,365,368,370,371,372
(d) Disciplinary - History 411, 412,415, 416, 419
6 hours economics elective or 6 hours geography elective or 9 hours political science electives

Political Science concentration
Anthropology 208
Political Science 102, 200,316
9 hours of Political Science at the 200 level (excluding 200) distributed among three of the subfields (political behavior and methodology, political theory, public law and administration, American institutions and processes, international relations and cooperative government; must include either Political Science 213, 233, or 234)

9 hours Political Science at 300 level; must include 3 hours American studies.
15 hours Political Science at 400 level; must include 3 hours American studies and no more than 6 hours from Political Science 461r, 462r, 463r, 464,471r, 472,480,481,495r, 497r, 498r, or 499r.

For graduation: 2.0 average in social sciences and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower thanC.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Exceptional Learning K-12 (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121 & 122 (6 hours)
Intensive Writing: 3 hours approved course. (3 hours)
Oral Communication: Theater & Speach 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Western Humanities I and II and one approved Non-Western Cultures and Civilization course (9 hours)
Humanities and Fine Arts: Art 111, Music 111, THSP 111 (9 hours)
Behavioral & Social Sciences: Political Science 101 and one approved Behavioral/Social Science course (6 hours)
Natural Sciences: One from Astronomy 102/182, Chemistry 121/123, 125, General Science 111/181, Geology 111/181, Physics 103/182, 230/280 and one course form Anthropology 209, Biology 121, and **Environmental Science 150 (8 hours)**
Mathematics: Mathematics 214* (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and Related Courses

English 228
Exercise Science, Health, and Leisure Studies 302
Human Ecology 445
Liberal Studies Elective
Psychology 101, 221 or 222, and 241
University Studies 340

55 hours from the College of Education and Applied Professional Studies including Education 201,250,320,323,325,330,413,414,415,416,425, 426,430,436,461,445
For graduation: 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5.at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower than C.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

*** If certified for general education mathematics**

Theatre and Speech (B.A.): Teacher Education K-12 concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: Completion of the,oral communications requirement within the major. (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities 1 and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, HI (9 hours)
Humanities and Fine Arts: Art 301, Music 111, English 207 (9 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in twp different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one **including a laboratory** component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional **semester exercise** science activity.

Foreign language through second college year

Completion of **a minor within** the College of Arts and Sciences with a **minimum** 2.0 grade point average

Major and related courses

Art 340
Music **340**
Psychology **221 or 222** or Human Ecology 242
41 hours of Theatre & Speech courses including, 141, 143, **151,** 200r, (2 semesters) **221, 255,257,**300r, (2 semesters), 340,331,343,400r, (2 **semesters), 412,431,457,** and 463r (Summer Theatre Institute)

25 hours from the College of Education and Applied Professional Studies **including Education 201**,321 or 323, 433,**444;** ESPY 400,
For graduation: 2.0 major **in Theatre** & Speech courses and 2.0 average in **College of Education** and Applied Professional Studies
For licensure 2.5 average cumulative, 2.5 at UTQ 2.5 average in education **courses with** no grade less than a C, 2.5 in content area coursework with no **grade lower than C.**

Minimum of 30 hours of 300 and 400 level courses
Electives to complete **128** hours

EDUCATION COURSES

101 Career and Life Planning (3)
Focus is on helping the individual make career and life plans. A series of techniques (role playing, psychodrama, sociodrama, value clarification, and **decision making) will** be utilized to facilitate each student's examining his or **her interrelated value** systems associated with education, work, leisure, and self-**expression. Every semester.**

105 Strategies for College Reading (3 hours institutional credit)
The course provides insights into the reading process, language expansion, **content area language** strategies, and improved study skills. Students will **engage** in **a** variety of activities involving reading, writing, speaking, and **listening to enhance their** ability to comprehend a variety of printed materials. Credit not applicable *toward any degree.*

199r Special Projects (1-4)
Individual projects and field components. On demand. Maximum credit 4 hours. Prerequisite: *transfer student and approval of department head.*

200r Investigations of the School in Society **(3)**
Observations and simulations involving the school as a social institution and the role of the teacher in preparation for instruction. Field component required. Every semester.

201 Education in the United States (3)
Organization and historical development of education in the United States, **philosophical concepts and** their influences on contemporary education, **current issues. Field** component. Every semester.

202 Human Growth and Development: Pre-School Primary (3)
Child development focusing **on** study of child, prenatal through six years, with **limited attention** to elementary age child. Field component required. On demand. Credit **not** *allowed in both Education 202 and Psychology 221.*

203 Human Growth and Development: Child (3)
Child development factors influencing growth; characteristics, influence of concepts **on** the education process. Field component required. Every semester. Credit **not** *allowed* m Curriculum *and* Instruction *20S and Psychology 221.*

204 Human Growth and Development: Adolescent (3)
Adolescent development factors influencing growth, characteristics, influence of concepts on the educational process. Field component required. Every semester. Credit not allowed in both *Education 204 and* Psychology *222.*

207 Educational Psychology (3)
Theories of learning and instruction applied to the classroom, as psychological environment, cognitive processes and motivation, use of tests and measures, approach to guidance. Field component required. On demand.

215r Workshop and Seminar (3,4)
Current topics in education. Special programs and in-service courses. On demand. Prerequisite: approval *of department head.*

250 Introduction to Special Education (3)
A survey of special education with emphasis placed upon consideration of the history of special education, federal involvement and leadership, and the global characteristics of the target population. Field component required.

306 Designing Instruction and Evaluation in the Elementary Classroom (3)
Examination of the elements of evaluation, planning and management common to elementary school. Students will demonstrate competency in unit development, selected component teaching skills, and evaluation planning. Prerequisite: *Education 201.*

310 Elementary School Curriculum (3)
The curriculum for grades one through six and the impact of technological and social change on curriculum planning and school organization. On demand.

320 Nature and Characteristics of Mild Disabilities (4)
An in depth study of the psychological, physical, educational, medical, behavioral, and learning characteristics and needs of the mildly disabled population. Field component required. Prerequisite: Education 250.

321 Teaching of Reading in the Secondary School (3)
Integrating reading skills and teaching strategies with the teaching of content area subjects. Every semester. Prerequisites: *Education 201 and 204,* or *permission of the* instructor. Required *of all secondary education majors.*

323 Teaching Reading (3)
Emphasis on reading as a developmental process and on useful strategies for getting meaningfrom print; survey of current methods, ways to integrate literature, teaching procedures, assessment techniques, and materials for die teaching of reading; field based. Prerequisites: Education 306, English 228 or *229. May not be used for graduate credit.*

325 Nature and Characteristics of the Individual with Moderate and Severe and /or Multiple Disabilities (4)
The in depth study of the psychological, physical, educational, medical, behavioral, and learning characteristics and needs of students with moderate, severe, or multiple disabilities. Field component required. Prerequisite: Education *250.*

330 Academic and Behavioral Evaluation (3)
A study of the basic principles and techniques of educational evaluation in special education used by die classroom/resource teacher. Fall semester. *Prerequisite: Education 250 or EPSY400. Corequisite: Education 330 lab.*

400 Survey of Exceptional Learners (3)
See Educational Psychology 400

401 Introduction to Counseling (3)
A basic course designed to provide an orientation to die philosophy, theories, and techniques of individual and group counseling to undergraduate students who are seeking foundational understandings for future courses in the functions of counseling in modern society. On demand.

410 Strategies for Early Learners (3)
Planning, implementing, and evaluating effective learning experiences for children from birth through kindergarten. Emphasis on integrated curriculum and developmentally appropriate practice. Field component. Prerequisites: Education 306, Human Ecology *240, 241* •

41 lr Teaching Social Studies in the Elementary School (1)
Designed to model effective methods and materials for teaching social studies in elementary grades. Emphasis on an integrated literature-based spiral curriculum. Field component. Prerequisite: Education 306. Corequiste: University Studies 440.

412 Teaching Science in Elementary School (1)
Designed to develop a variety of teaching strategies for science instruction in the elementary grades. Emphasis will be placed on resources, inquiry skills, and developmentally appropriate activites. Field component. Prerequisite: Education 306. Corequisite: University Studies 311 .

413 Teaching Language Arts in the Elementary School (1)
Designed to develop an understanding of the basic concepts of language usage in the elementary classroom. Emphasizes the interrelatedness of language arts skills while demonstrating developmentally appropriate instructional strategies, activities, materials, and assessment techniques. Prerequisites: *Education* 306, 323; English 228, Human Ecology 240, 241. Corequisite: University *Studies 340.*

414 Teaching Mathematics in the Elementary School (1)
Designed to provide students with effective methods for mathematics instruction in the elementary grades. Emphasis will be placed on assessment techniques and developmentally appropriate strategies and materials. Field component. Prerequisite: Education 306; Corequisite: Mathematics 214.

415 Instructional Technology for the Adolescent Exceptional Student (3)
An examination of the unique needs and particular issues which are specific to mildly handicapped adolescents and adults. The course emphasizes approaches and methodology concerning corrective and compensatory instruction.

416 Instructional Technology for the Elementary Exceptional Student (3)
An examination of the principles of clinical teaching and the individualizing of instruction for mildly handicapped elementary students. The course emphasizes instructional approaches and methodology concerning corrective and compensatory instruction.

417 Technology and Learning (3)
This survey course in technology will extend student knowledge of work processing, spreadsheets, databases, communications software, edutainment software, and the Internet through in class, hands-on assignments. Projects will be individually geared to the needs of the audience. Every semester. Prerequisites: CPSC 110 or equivalent; *Education* 323 or *321.*

418 Middle Grades Organization, Curriculum, and Instruction (3)
A theoretical and practical orientation to the middle grades, holtstically addressing the personal, social, and academic needs of young adolescents. Emphasizes organizational issues, integration of curriculum, and appropriate strategies for instruction and assessment. Prerequisite: Education 201.

420 Emergent Literacy (3)
Emphasis on the development of an instructional reading program that meets the needs of young children. Surveys classroom teaching models, assessment procedures, methods and materials. Prerequisites: *Education* 306, 323, English 228.

422 Teaching Reading in the Intermediate Grades and the Middle School (3)
Teaching/learning strategies to deal with content and process of reading; emphasis on vocabulary development, comprehension strategies, basic study skills, reading in content areas. Summer semester. Prerequisite: *Education 323.*

423 The Middle Grades: Assessment and Instruction (3)
Classroom diagnostic and prescriptive teaching; linking middle grades reading, assessment, decision-making and instruction; in-depth study of selected assessment instruments, instructional strategies, materials, and management procedures. Field component. Prerequisites: Education *323 (or* equivalent) or permission *of* instructor; *admission to Teacher* Education Program. May not *be used for graduate credit.*

425 Procedures for Individuals with Physical and Multiple Disabilities (3)
An examination of the unique needs and particular issues which are specific to children and adults who have physical challenges or multiple disabilities or are medically fragile- The course emphasizes how instructional approaches and methodology may be altered with special emphasis on physical and health management and adaptive technology. Fall semester. *Prerequisite: Education 325 or* permission *of* instructor.

426 Instructional Procedures for Individuals with Moderate, Severe, or Multiple Disabilities (3)
An examination of the unique needs and particular issues which are specific to moderately and severely disabled children, adolescents, and adults. The course emphasizes instructional approaches and methodology concerning functional academic curriculum, social skills development, career and vocational development, personal management, recreation/leisure, and general community living skills. Fall semester. Prerequisite: *Education* 325 or *permission of* instructor.

430 Gifted and Talented Children and Adults (3)
This course examines the social, emotional, and intellectual characteristics of the gifted/talented child and focuses on the appropriate teaching/learning requirements in resource and regular classrooms. Special attention will be given to program models, curriculum development, and teaching strategies.

431 Teaching Strategies and Materials in Foreign Language (3)
Curriculum and methods appropriate for foreign language. Fall semester Prerequisite: Education *201. May* not *be used for graduate credit.*

433 Designing Instruction and Evaluation in the Secondary Classroom (4)
Formulating and evaluating appropriate affective and cognitive objectives. Lesson planning and a wide range of teaching strategies will be examined. Each student will be required to demonstrate proficiency in a variety of component teaching skills via the microteaching laboratory and a self' developed teaching unit. Every semester. Prerequisite: admission *to teacher education program. Corequisite:* Education 431.

436 Classroom Management in Special Education (3)
An examination of the adaptation of classroom management techniques in the classroom as well as individual tutorial situations. Fall semester. Prerequisites: Education 250.

439 Student Teaching in Multidisciplinary School Learning (12)
Enhanced student teaching at the elementary level in both early and middle grades in Professional Development School II. Placements will ensure experiences in diverse schools. Every semester. *Prerequisites:* AH education coursework, 90% *of* content coursework, *admission* to Teacher *Education Program, application for and admission* to *student* teaching according to School *of Educational Leadership* guidelines. Required *of all Multidisciplinary School* Learning majors. *May not be used for graduate credit.*

440 Student Teaching in Early Childhood Education (Pre K-4) (12)
Enhanced student teaching in a Pre-K or kindergarten setting and in primary grades in Professional Development School II. Placements will ensure experiences in diverse schools. Every semester. *Prerequisites: All education coursework, 90% of content coursework, admission to Teacher Education Program, application for and admission to* student *teaching according to School of Educational Leadership guidelines. Required of Early Childhood Education majors.* May not be *used for graduate credit.*

443 Student Teaching in Secondary Schools (12)
Enhanced student teaching in both junior high or middle school and senior high school in Professional Development School II. Placement will ensure experiences in diverse schools. Every semester. Prerequisites: All *education coursework, 90% of content coursework, admission to Teacher Education Program, application for and admission to* student *teaching according to School of Educational* Leadership guidelines. *Required of Secondary Education majors. May not be used for graduate credit.*

444r Student Teaching in Music, Visual Arts, Exercise Science, Health Promotion, and Theatre (12)
Enhanced student teaching in both elementary and senior high school grades in Professional Development School II. Placements will ensure experiences in diverse schools. Every semester. Prerequisites: AH *education coursework, specific methods courses related to the* discipline, 90% *of content coursework, admission to Teacher Education Program, application for and admission to student teaching according to School of Educational Leadership guidelines. Required of majors in Music Education, Art Education, Exercise Science KA2,* Health Promotion, and Theatre Education. *May* not *be used for graduate* credit.

445 Student Teaching in Exceptional Learning (12)
Enhanced student teaching in two exceptional learning settings (one modified and one comprehensive) in Professional Development SchoolII. Placements will ensure involvement with students in elementary and secondary grades in diverse schools. Every semester. Prerequisites: AH education *coursework,* 90% *of* content coursework, admission to *Teacher Education Program,* application *for and* admission *to* student teaching *according to School of Educational Leadership guidelines. Required of Exceptional Learning majors. May not be used for graduate credit.*

446 Student Teaching in Middle Grades Education (12)
Enhanced student teaching in two middle grades settings and two content areas in Professional Development School II. Placements will ensure experiences in diverse schools. Every semester. *Prerequisites:* AH *education coursework,* 90% *of content coursework, admission to Teacher Education Program, application for and admission* to student teaching according to *School of Educational Leadership* guidelines. Required *of Middle Grades majors. May not be used for graduate credit.*

450 Teaching Strategies and Materials in Secondary English (3)
Curriculum and methods appropriate for secondary English. Spring semester. *Prerequisite: Education 201. May not be used for graduate credit.*

451 Teaching Strategies and Materials in Secondary Mathematics (3)
Curriculum and methods appropriate for secondary mathematics. Fall semester. Prerequisite: Education 201. *May* not *be used for graduate* credit.

452 Teaching Strategies and Materials in Secondary Social Science (3)
Curriculum and methods appropriate for secondary social science. Fall semester. Prerequisite: Education 201. May not be used for graduate credit.

453 Speech Disabilities and Language Development (3)
Recognition and understanding of language development and speech disabilities. Basic diagnosis, remediation, and speech improvement activities incorporated. Fall semester.

454 Teaching Strategies and Materials in Secondary Natural Science (3)
Curriculum and methods appropriate for secondary natural science. Spring semester. Prerequisite: *Education 201. May not be used for graduate credit.*

458 Readings and History: Teaching English as a Second Language (3)
In-depth study of the history of English as a Second Language instruction. This course will investigate the development and characteristics of various programs used in teaching English to limited English proficient (LEP) students. Additional study will focus on articles written by major researchers in this field. The central purpose of this course is to provide experience in identifying, analyzing, and discussing significant current issues in the field of English as a Second Language

459 Strategies and Methods of Teaching English as a Second Language (3)
Involves the study and application of second-language theories and cultural knowledge to ESL teaching methodology and curriculum design. In addition, explores various approaches which should benefit second-language learners and presents techniques of adjusting lessons to suit the needs of second-language learners and enhance their acquisition and use of English. Concentrates on assisting educators in the development of appropriate strategies for teaching speaking, writing, and grammar in ELS environments.

461 Individualized Instructional Design and Clinical Teaching (3)
Examination and implementation of the principles of clinical teaching and the individualizing of instruction. Includes the use of formal and informal assessment results in planning education strategy. Field component required. *Prerequisite: admission to teacher education program.*

480 Teaching Media (3)
The selection, use, and evaluation of technological innovations in audiovisual media, emphasis on laboratory experiences in communication media. On demand.

481 Educational Tests and Measurements (3)
Measurement of human abilities and instructional outcomes, survey of elementary statistical concepts, construction of valid and reliable tests and evaluative instruments. On demand.

482 Teaching Social Science Through Science Fiction (3)
Explores uses of science fiction in teaching social issues and the future. Emphasis on creativity and integration with traditional content. On demand.

483 Teaching Internship (9)
For the temporarily certified employed teacher. Provides close supervision in planning, implementation, and evaluation. Tailored to fit specific school setting. On demand. *Prerequisites:* oreyear/iJ-timeteachirigincera/iafcfearea.appro^ *and* Applied Pro/essional Studies *dean. May notbeusedfor graduate credit.*

490r Workshop and Seminar (2-4)
Special problems and discussion of current topics in education. On demand. Prerequisite: senior or graduate standing.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See "Departmental Honors," page* 36.

497r Research (1-4)
On demand. *Prerequisite: approval o{department head.*

498r Individual Studies (1-4)
On demand. Prerequisite: *approval of department head.*

499r Group Studies'(1-4)
On demand. Prerequisite: *approval of department head.*

EDUCATIONAL PSYCHOLOGY

400 Survey of Exceptional Learners (3)
An overview of exceptional children and youth and the philosophy of inclusion. Emphasis on individual differences among students with particular attention to students with special needs. The interrelated roles of regular and special education teachers and related professionals in adapting instruction to meet special needs will be addressed. *Prerequisite: none; credit not allowed in both EDUC 250 andEPSY400.*

Exercise Science, Health, and Leisure Studies (EHLS)

Professor D. Cundiff, *Head*

EHLS is a department within the College of Education and Applied Professional Studies committed to the development and maintenance of active, creative, health-promoting lifestyles and enhancement of skilled and aesthetic performance for both the professional and the consumer. The EHLS department encompasses three disciplines pertaining to the enhancement of the "Quality of Life": exercise science, health promotion, and leisure studies. Seven (7) distinct academic career program tracks and two (2) minor courses of study are offered:

Career Program Tracks:
1. Community Health Education
2. Exercise Science: Fitness/Wellness Specialist
3. Exercise Science: Cardiopulmonary Rehabilitation
4- Exercise Science: K-12
5. Health Promotion: K-12
6. Leisure Studies ^
7- Sports Administration

Minor Courses of Study:
1. Athletic Coaching
2. Leisure Studies

In addition, EHLS offer a diversified service program of lifetime physical activities primarily for the undergraduate students. One activity course from this program may be used to fulfill 1 hour of the University requirement of 2 semester hours. EHLS 021 Concepts and Application in Physical Education is required to fulfill the second hour.

Furthermore, EHLS provides an exemplary intramural and club sports program as well as a variety of leisure services activities for the University community.

(B.S.); Exercise: Cardiopulmonary Concentration

The concentration in cardiopulmonary rehabilitation is designed for individuals interested in professional preparation in exercise testing, exercise prescription, and program administration for individuals with cardiac and/or pulmonary disease. Students completing this concentration will be prepared for the American College of Sports Medicine (ACSM) certification examinations including Exercise Test Technologist and Exercise Specialist. Additionally, graduates of this program may seek entry into graduate study.

Internship Admittance
The internship practicums in exercise science are scheduled during the final semester of the senior year. Normally, a student may not gain official approval for enrollment in either internship EHLS 479 or 480 prior to completing all coursework within the concentration. Approval of the program leader and EHLS department head is required. Current first aid/CPR certification and liability insurance are required prior to registration.

Students will be required to purchase uniforms/lab attire for their internship placement. Students must be financially prepared for travel and living expenses outside the Chattanooga area.

Internship placement is competitive and dependent on previous class and clinical work and internship site coordinator interviews. If in the judgement of the faculty there is reason to question the emotional or cognitive readiness of the student to successfully complete an internship, the faculty has the right and obligation to exclude the student from the internship.

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition; ENGL 121,122 (6 hours)
Intensive Writing: ENGL 277 or 278 (3 hours)
Oral Communication: One approved course in oral communication (3 hours)

Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Psychology 101 and one other approved course (6 hours)
Natural Sciences: CHEM 121/123 and either CHEM 122 or 168 (8 hours)
Mathematics: MATH 123 or 136 or 145 or 151/152 (3 hours)
Statistics: MATH 210 (3 hours)

Exercise Science, Health and Leisure Studies: 021 plus one additional semester exercise science activity.

Major and related courses

Biology 191, 208, 209
Chemistry 122 or 168
Computer Science 110
Human Ecology 135
2 courses form HECO 332, 335, 336, 434, Nursing 300, 316
55 hours including Exercise Science, Health, and Leisure Studies 154, 201, 209, 300, 301, 314, 315, 316, 317, 318, 332, 401, 417, 418, 419, 420, 452, 456, 479, 480
Recommended electives: Exercise Science 100, Physics 103, Chemistry 350, 351
2.0 average required in EHLS courses
2.0 average overall for graduation
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

(B.S.): Fitness/Wellness Specialist Concentration

This concentration in Exercise Science: Fitness/Wellness Specialist is designed to provide the necessary knowledge, skills and abilities to work in a worksite, commercial, or hospital bases wellness/fitness setting with apparently healthy individuals and those individuals with controlled cardiac, metabolic, or pulmonary disease. The curriculum included classroom, laboratory, and clinical experiences, which meet the standards of the American College of Sports Medicine (ACSM), for health fitness programs. Students have the opportunity for clinical experiences in the UTC Healthy Mocs Wellness Program in addition to a full semester clinical internship in a worksite, commercial or hospital setting. Students successfully completing the concentration will be prepared for ACSM Certification exams including Exercise Leader and Health Fitness Instructor.

Continuation Standards, Internship Admittance and Graduation Standards

Due to the nature of the practice of exercise science and the affect on the quality of life, the following standards will be applied for all individuals enrolled in the Fitness/Wellness Specialist concentration:

1. To continue to progress in the fitness/Wellness concentration, students are required to
   a. maintain current CPR and First Aid certification
   b. maintain liability insurance for all clincial courses

2. If in the judgment of the faculty, there is reason to question the emotional and-or cognitive readiness of the student to successfully complete the clinical internships, the faculty had the right and the obligations to exclude the student from the pre-clinical or the clinical internships.

3. Students will not be placed in the Clinical Internship (EHLS 479, 480) until all course work is completed satisfactorily.

4. Students will be required to purchase uniforms/lab attire for both pre-clinical and clinical internships. Students must be financially prepared for traveling and living expenses out of the Chattanooga area.

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: ENGL 277 or 278 (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Psychology 101 and one other approved course (6 hours)
Natural Sciences: CHEM 121/123 and either CHEM 122 or 168 (7-8 hours)
Mathematics: MATH 123 or 136 or 145 or 151/152 (3 hours)
Statistics: MATH 210 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

Human Ecology 135
Biology 191, 208,209
2 courses from HECO 332, 335, 336, BMGT 315
54 hours including Exercise Science, Health, and Leisure Studies 154, 201, 209, 300, 301, 316, 317, 318, 332, 340, 401, 407, 417, 418, 419, 453, 456, 479,480
Recommended electives: BACC 201, 202, EHLS 100
2.0 average required in EHLS courses
2.0 average overall for graduation
Minimum of 30,hours of 300 and'400 level courses
Electives to complete 128 hours

(B.S.): Community Health Education Concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Philosophy 201, and one from fine arts (6 hours)
Behavioral & Social Sciences: Human Ecology 340 and> Psychology 101 (6 hours)
Natural Sciences: Chemistry 121/123 and Environmental Studies 150 (8 hours)'
Mathematics: Mathematics 123 (3 hours)
Statistics: Math 210 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

2 courses from ECON 102, BACC 201, BMKT 313;
2 courses from Biol 191, 208, 209, Cheml22, ESC 410
2 course from SocW 150, 450, Psy 221 or 222, HSRV 405
EHLS 201, 275, 303, 479, 480
27 hours from EHLS 100, 154, 302, 317, 401, 450, 451, 452, 453. 456, HECO 135 (Up to 12 hours of clinical/specialty hours may be transferred in toward these hours)
2.5 average in EHLS component of major courses
Electives to complete 128 hours (minimum of 30 hours of 300 and 400 level courses)

(B.S.): Exercise Science K-12 concentration

This career program prepares students who desire teacher licensure/certification and endorsement in physical education instruction (K-12). Since graduates of this program can be certified to coach, a partial segment of the concentration is devoted to content and laboratory courses designed to ensure necessary skills for both teaching and coaching. Graduates of this concentration may seek entry into graduate studies.

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: ENGL 277 (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities 1 and 11 (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Human Ecology 340 and Psychology 101 (6 hours)
Natural Sciences: Chemistry 121/123 and one other approved natural science course (7-8 hours)
Mathematics: MATH 123 (3 hours)
Statistics: MATH 210 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and Related Courses

Human Ecology 135
Biology 191, 208,209
Psychology 221
39 hours in Exercise Science, Health, and Leisure Studies including 100, 154, 201,317,318,332,340,404,407,456, and minimum of 12 hours in professional activities as follows:
4 hours from EHLS 203,204, 205
2 hours from EHLS 206, 207
6 hours from EHLS 208, 209, 210
31 hours from the College of Education and Applied Professional Studies including Education 201,433,444; Exercise Science, Health, and Leisure Studies 330,401,431.436
For graduation: 2.5 average in EHLS courses and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2:5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower thanC.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

***In addition to the above requirements, students must be admitted to the Teacher Education Program before registering for advanced Education courses. See page 109.**

(B.SJ: Health Promotion K-12 concentration

This career program prepares students who desire teacher licensure/certification and/or endorsement in health education instruction (K-12). Graduates of this concentration may seek entry into advanced graduate studies.

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, 11, III (9 hours)
Humanities and Fine Arts: Philosophy 201 and one from Fine Arts (6 hours)
Behavioral & Social Sciences: Human Ecology 340 and Psychology 101 (6 hours)
Natural Sciences: Chemistry 121/123 and Environmental Science 150 (7-8 hours)
Mathematics: MATH 123 (3 hours)
Statistics: MATH 210 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and Related Courses

Biology 191, 208,209
Psychology 221 or 222
39 hours including Human Ecology 135,328; Exercise Science, Health, and Leisure Studies 100,154, 201,303,317,436,450,451,452,453,456 and electives selected in consultation with the advisor
31 hours from the College of Education and Applied Professional Studies including Education 201,321,433,444; Exercise Science, Health, and Leisure Studies 302,401,431
For graduation: 2.5 average in Exercise Science, Health, and Leisure Studies and 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower thanC.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

•In addition to the above requirements students must be admitted to the Teacher Education Program before registering for advanced Education courses. See page 109.

Admission to the Teacher Education Program (TEP) for Exercise Science K-12 and Health Promotion K-12 '

In addition to meeting criteria for admittance to the TEP, a student desiring certification in exercise science pedagogy K-12 teacher licensure or health promotion pedagogy K-12 teacher licensure will be expected to meet the following criteria:

1. Have a minimum grade point average of 2.5 in professional exercise science, health, and leisure studies course work;
2. Successfully complete an interview with his/her TEP department committee.

Students enrolled within the teacher licensure concentrations of exercise science or health promotion are expected to maintain and demonstrate standards of ethics

reasonably attributed to an educator who holds professional teacher certification.

Further, students who plan to teach outside the state of Tennessee are strongly urged to check the certification requirements of the state with the appropriate state department of education before the end of the sophomore year in order to plan her/his program appropriately.

(B.S.): Leisure Studies Concentration

The leisure studies program is a uniquely structured track for the student with career ambitions for being employed by or serving voluntarily with an agency, public or private, the functions of which include the provision of leisure studies and activities. The focus of the major courses in the leisure studies program is directed toward the practical applications of theories and strategies learned in professional leisure studies courses.

To reinforce this intent, a student specializing in leisure studies is expected to engage in several different types of field assignments and experiences.

Internship Admittance

The internship practicums in leisure studies are usually scheduled during the senior year. Normally, a student may not gain official approval for enrollment in either internship EHLS 479 or 480 prior to completing at least 12 semester hours of course work within EHLS at UTC. Approval of program leader and EHLS department head is required.

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: ENGL 277 (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestem Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Political Science 101 and Economics 102 (6 hours)
Natural Sciences: Enviromental Science 150 and 1 other approved natural science (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: MATH 210 or BMGT 211 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Political Science 233
Sociology 305
61 hours of Exercise Science, Health, and Leisure Studies including:
31 hours leisure studies component to include: Exercise Science, Health, and Leisure Studies 200,202, 220,304, 305,325,470,479,480; and
12 hours health component to include: Exercise Science, Health, and Leisure Studies 100, 154, 303, 453; and
18 hours exercise science component to include: Exercise Science, Health, and Leisure Studies 405, 407; 12 hours of professional activity courses
2.0 average in leisure studies component of major courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

(B.S.): Sports Administration Concentration

Sports Administration concentration contains foundation courses in exercise science and leisure studies as well as a business component which includes core courses selected from communications, management, marketing, economics, law, accounting, and computer science.

Sport-specific components and skills related to management and administration of sport are offered within this concentration. The concentration is designed to prepare students for careers in both the public and private sectors as well as graduate studies.

Internship Admittance

The internship practicums in Sports Administration are usually scheduled during the senior year. Normally, a student may not gain official approval for enrollment in either internship EHLS 479 or 480 prior to completing at least 12 semester hours of course work within EHLS at UTC. Approval of program leader and EHLS department head is required.

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121,122 (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: EconomicslOl & 102 (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: BMGT 211 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and Related Courses

33 hours related courses to include: Computer Science 110; Communication 101 and 271; Theatre and Speech 109; Accounting 201, 202, and either 335 or 336; Marketing 313; Management 315 plus 6 hours from Management 103, 310, 332, 410
42 hours Exercise Science, Health, and Leisure Studies to include: EHLS 100, 154,200,304,325,401,405,407,453,470,479,480

2.0 average in EHLS component of major courses
Minimum of 30 hours of 300 and 400 level courses
Electives to be selected by student and assigned academic adviser to complete 128 hours

EHLS MINORS:

Athletics Coaching

This program is designed to address mental skills, strategies, and concepts of coaching from the allied fields of physiology, psychology, sociology, kinesiology, and management for individuals planning adjunct careers in coaching with majors olher than EHLS.
21-22 hours including: 3-4 hours from Biology 191 or EHLS 201 or EHLS 317; EHLS 209,340,405,407,479; two courses from EHLS 203, 204, 205 or from 206,207, 208 or one from 203,204, 205 and one from 206, 207, 208
Minimum 2.0 average in the minor

Leisure Studies

Total of 24 hours including: 6 hours of health to include EHLS 100,154; 6 hours in three courses from EHLS 202, 220, 224, 228, 235, 237; 12 hours in

four courses from EHLS 200,304,305,325,470
Minimum 2.0 average in the minor.

EXERCISE SCIENCE, HEALTH & LEISURE STUDIES COURSES

Physical Recreational Activities

Courses within the service program hold contemporary attractiveness as "lifetime" activities and should appeal to the educated adult for maintaining a healthful and wholesome lifestyle.

Every undergraduate student will be expected to satisfactorily complete a minimum of two exercise science/leisure studies activities, one of which must be EHLS 021.

The second digit in the service course number indicates the level of skill required for the course. The 2 indicates beginning level, while the 3 indicates intermediate or advanced level. Students will be screened during the initial phase of the course to ascertain the course level in which they should participate. Upon learning the recommended level, each student will be expected to adjust his or her schedule accordingly in order to derive the greatest participatory benefits from the course.

021 Concepts and Application in Wellness/Physical Education (1)
This course is designed to develop sound strategies for adopting and maintaining a physically active lifestyle. Emphasis os placed upon the concept of health related physical fitness (HRPF) and concepts related to the optimal functioning of the cardiopulmonary system, nutrition and body composition, and musculoskeletal system. Assessments will be used to provide the student wit their current levels of HRPF with laboratory activites designed to demonstrate how students might improve and maintain optimal physical fitness. Every semester.

027 Adapted Physical Education (1)
Designed for those students with physiological, anatomical, and medical limitations that limit the amount of physical activity. Registration in or transfer to the class is dependent upon the recommendation of a physician or the major advisor of Exercise Science and Health.

028 Beginning Hiking and Backpacking (I)
This course is for beginners and will teach the philosophy of low impact hiking and camping. The basics of equipment, map, and campus use and trip planning will be covered. Field experience will be a part of the course.

029 Beginning Bowling (I)
This course presents terminology of the game, various grip and stances, the delivery approach, release, and follow through. Rules and scoring as well as tournament bowling are learned. Students with an average of 135 or higher are not eligible for this beginner course.

030 Beginning Golf (1)
this course stresses swing motion and the basic fundamentals. Techniques of the full swing and the short game are presented. Rules and etiquette are covered.

031 Beginning Racquetball (1)
This course is designed to emphasize the fundamental skills of racquetball. Students are taught how to execute shots from a variety of positions and how to use strategy to their advantage. Tournaments are played within the class to allow students practical application of the skills they are taught.

037 Beginning Tennis (1)
Beginning tennis skills are presented including forehand and backhand ground strokes, the volley and the serve. Rules, terminology, and basic game strategy will be taught. Through play, an increased level of fitness and skill will be gained to promote participation in tennis thoughout life.

038 Beginning Badminton (1)
Beginning badminton is a badminton introductory activity class. This class is designed to teach the basic skills and strategies necessary for participating in recreational badminton. >.

040 Beginning Conditioning and Weight Training (1)
This class is designed to help students understand and apply the basic principles of training as they relate to their individual cardiovascular fitness, flexibility, muscular strength and muscular endurance. Emphasis will be on the introduction of physiological principles and instruction on techniques of weight training.

041 Beginning Rowing (1)
Beginning rowing is an introductory course that focuses on the fundamental skills of sweep rowing. This course will proceed at a pace that is appropriate for new rowers, or those with limited experience. However, the course will be come physically demanding as the semester progresses.

042 Beginning Sculling (1)
This course is designed to proceed at each student's skill level and ability. The focus is to learn how to row a one person rowing shell (i.e. scull). No prior rowing experience required but must know how to swim.

043 Beginning Circuit Training (1)
This class is designed to improve cardiovascular fitness, muscular strength and flexibility utilizing interval training.

044 Beginning Water Aerobics (1)
This course uses exercises conducted in water such as water walking, aerobic exercise to music, various resistance exercises to develop cardiovascular, and musculoskeletal fitness.

045 Beginning Aerobic Dance/Step (1)
Beginning aerobic exercise will be taught at the beginning level. The course is designed to provide each student with the opportunity to learn the principles and facts about aerobic fitness and to develop their aerobic fitness by learning and performing various beginning level aerobic dances and step aerobics. The aerobic dances are geared for the non-dancer and include a blend of jogging, lunges, arm and leg movements, and other large muscles movement patterns that are set to music. Step aerobics is a combination of arm movements set to stepping up and sown on a step.

046 Beginning Canoeing (1)
This course will teach the beginning student strokes, parts of equipment, and trip planning. Field experience will be a part of the course.

047 Beginning Jogging/Running for Fitness (1)
This course introduces students to fundamental skills in the art of ballet. Movement combinations of allegro and adagio along with a self'choreographed dance are incorporated.

048 Beginning Ballet (1)
This course introduces students to fundamental skills in the art of ballet. Movement combinations of allegro and adagio along with a self-coreographed dance are incorporated.

049 Beginning SCUBA Diving (1)
This course will teach students how to dive safely and be able to plan a scuba dive. Diving equipment, techniques, medical aspects, and diving physics will be covered.

050 Beginning Gymnastics (1)
Beginning gymnastics is designed to acquaint students with the concepts, values, and technical elements of gymnastics.

051 Beginning Swimming (1)
This course affords students the opportunity to work in the shallow and deep waters. Skills are developed as well as safety behaviors.

055 Walking for Fitness (1)
This course provides an opportunity to develop cardiovascular fitness and weight control. Selection of proper clothing and equipment, the physiological effects of a walking program, care and prevention of injuries, and the mechanics of safe exercise are presented. Nutrition and weight control are covered.

056TaiChi(l)
This course provides students with an introduction of Tai Chi exercise, including its methods, principles and applications. Through learning and practicing a short form of Yang style Tai Chi Quan, students will be able to use Tai Chi exercises as a way, 1) to improve their mental and physical health; 2) release stress; 3) promote positive energy, and; 4) to enrich their quality of life.

057 Swimming for Fitness (1)
To gain an understanding of principles of training and benefits of aquatic exercise using swim strokes; freestyle, backstroke, sidestrokes. Times swims are included.

058 SCUBA Lifesaving & Accident Management (1)
This course will teach scuba lifesaving techniques, CPR, first aid and emergency oxygen use as it pertains to the sport of scuba diving. The student will be able to recognize an emergency and respond in the proper manner.

059Lifeguarding/WSI(l)
The purpose of the lifeguard training course is to teach lifeguards the skills and knowledge needed to prevent and respond to aquatic emergencies. The course content and activities prepare lifeguard candidates to recognize emergencies, respond quickly and effectly to emergencies, and prevent drowning and other incidents. The course also teaches other skills an individual needs to become a professional lifeguard.

060 Beginning Boxing Aerobics (1)
Beginning Boxing Aerobics will be taught at the beginning level. The course is designed to provide each student with with the opportunity to learn the principles and facts about aerobic fitness and to develop their aerobic fitness by learning and performing various beginning boxing aerobic routines.

061 Self Defense (1)
This course is designed to provide students with an opportunity to gain self-confidence while learning basic defense techniques. Students will be instructed in the beginning level of self-defense techniques of a variety of martial arts including karate, tae kwon do, judo and kung fu.

065 Intermediate Rowing (1)
Intermediate rowing is a class designed for those students who desire to advance their knowledge and skill levels beyond that of students enrolled in beginning rowing. The class will serve to refine skills and conditioning levels achieved in pervious sweep rowing classes. The class is significantly more physically challenging than at the Beginning level. *Prerequisite:* Beginning rowing or instructor *approval.*

066 Intermediate Water Aerobics (1)
This course uses exercises conducted in water such as water walking, aerobic exercise to music, various resistance exercises to develop cardiovascular, and musculoskeletal fitness.

067 Intermediate Bowling (1)
This course focuses on refinement of the experienced student's delivery mechanics including the approach, release, and follow through. Maximum quality practice time is emphasized. Alternate approaches and release are presented and several types of tournaments are conducted.

068 Intermediate Golf (1)
This course builds on and refines swing motion. Ball flight control is introduced with more in-depth swing analysis.

069 Intermediate Tennis (1)
Increased proficiency in four basic skills will be developed. New shots taught include the overhead, the drop, the lob, and spin serve. Strategy for singles and doubles play will be stressed. Emphasis is on increased pace and ball placement.

070 Intermediate Conditioning and Weight Training (1)
This course emphasizes the development of individualized muscular strength and endurance programs following instruction in the physiological principles and techniques of weight training.

071 Intermediate Swimming (1)
Five swimming strokes are improved for the student's skills. Diving and combination skills along with safety are enhanced.

072 Intermediate Aerobic Dance/Step (1)
Intermediate aerobic exercise will be taught at the intermediate level. The course is designed to provide each student with the opportunity to learn the principles and facts about aerobic fitness and to develop their aerobic fitness by learning and performing various intermediate level aerobic dances and step aerobics. The aerobic dances are geared for the non-dancer and include a blend of jogging, lunges, arm and leg movements, and other large muscles movement patterns that are set to music. Step aerobics is a combination of arm movements set to stepping up and down on a step.

073 Intermediate Ballet (1)
Increased barre and floor skills and introduced and developed. From the fundamental ballet components, skills, and knowledge are gracefully strengthened.

074 Intermediate Gymnastics (1)
Intermediate gymnastics is designed to acquaint students with the concepts, values, and technical elements of gymnastics.

080 Advance Rowing (1)
Advance rowing is a class designed for those students who desire to advance their knowledge and skills and conditioning levels achieved in previous sweep rowing classes. The class is significantly more physically challenging than a the intermediate level. Prerequisite beginning rowing or instructor approval.

083 Advanced Water Aerobics (1)
This course uses exercise conducted in water such as water walking, aerobic exercise to music, various resistance exercises to develop cardiovascular, and musculoskeletal fitness. Aspects of nutrition and weight control are covered.

084 Advanced Aerobic Dance/Step (1)
Advanced aerobic exercise will be taught at the advanced level. The course is * designed to provide each student with the opportunity to learn the principles and facts about aerobic fitness and to develop their aerobic fitness by learning and performing various advanced level aerobic dances and step aerobics. The aerobic dances are geared for the non-dancer and include a blend of jogging, lunges, arm and leg movements, and other large muscles movement patterns that are set to music. Step aerobics is a combination of arm movements set to stepping up and down on a step.

088 Advanced SCUBA Diving (1)
This course will take certified scuba divers and give them additional experiences in diving. The areas covered will be night diving, deep diving, boat diving, underwater navigation and other special areas of scuba diving.

089 Advanced Conditioning and Weight Training (1)
This course emphasizes the development of individual muscular strength and endurance programs following instruction in the physiological principles and techniques of weight training.

100 Personal Health (3)
Significant data and facts helpful in making intelligent decisions about personal health; crucial issues of personal, family, and social living. Every semester.

154 Safety and First Aid (3)
Nature and causes of accidents; safety measures for prevention and emergency . treatment of common accidents; Red Cross certification may be given in advanced first aid and CPR. Every semester.

199r Special Projects (1-4)
Individual or group projects. Every semester. *Maximum credit 4 hours. Prerequisite: approval ofEHLS department head.*

200 Introduction to Leisure Studies (3)
Comprehensive survey of recreational implications for the American way of life; philosophic and historic foundations, career opportunities, and responsibilities. Fall semester.

201 Introduction to Exercise Science, Health and Sport (3)
Overview and summary of the fields of exercise science and sport activity based upon historical, social, psychological, physiological forces as they affect the individual and society; philosophy and principles of profession. Spring and fall semester.

202 Camping and Outdoor Education (2)
Study of the professional camping filed and how it relates to the concept of outdoor education. Fall semester.

203 Team Sports 1 - Football and Wrestling (2)
History, basic skills, game and match strategy, coaching techniques of football and wrestling. Spring semester.

204 Team Sports II - Baseball, Softball, and Volleyball (2)
History; analytical approach to fundamental concepts, basic skills, game strategy, coaching techniques and psychology; investigation of contemporary systems of offensive and defensive theories. Fall semester.

205 Team Sports HI - Soccer and Basketball (2)
History; analytical approach to fundamental concepts, basic skills, game strategy, coaching techniques and psychology; investigation of contemporary systems of offensive and defensive theories. Spring semester.

206 Lifetime Sports I - Racquet Sports: Tennis, Badminton, and Racquetball (2)
History, basic skills, strategy, contemporary teaching and coaching techniques, skill application for recreational and competitive usage appropriate to each sport. Spring semester.

207 Lifetime Sports II - Archery, Cycling, Golf (2)
History, basic skills, strategy, contemporary teaching and coaching techniques, skill application for recreational and competitive usage appropriate to each sport. Fall semester.

208 Stunts, Tumbling, Gymnastics, and Aquatics (2)
Acquisition of fundamental skill development, contemporary teaching and coaching competencies with emphasis on application for elementary, intermediate, and advanced neuromuscular development. Fall semester.

209 Physical Fitness: Weight Training/Conditioning, Aerobics, Track and Field *(1)*
History, basic skills, strategy, psychology, training systems basic to coaching and teaching with emphasis on progressive program from beginning through advanced neuromuscular applications of weight training, conditioning, track and field. Fall semester.

210 Movement Exploration and Rhythmic Sequences, Ballroom, Modern, Square Dance (2)
Folk and fundamental skill acquisition; teaching progressions for artistic execution and expression; elementary forms of productions with emphasis on lesson planning for classroom presentation of movement exploration and rhythmic sequences: Aerobic, Folk and Square Dance. Spring semester.

220 Leisure Studies Skills (2)
Skills relating to a variety of recreational activities and programs. Spring semester.

224 Movement Education (2)
Skill development and teaching procedures in movement education; fundamental and contemporary movement patterns. Every semester.

227 Skill Concentration (2) -.
Proficiencies in sports skills essential for the professional physical educatior and recreation leader. On demand. Class hours to be arranged. Prerequisite: For EHLS majors only.

300 Field/Clinical Experience 1(1)
An introduction to the methods, skills and procedures used in evaluating and prescribing exercise programs. Every semester. Prerequisite: EHLS 316, *317.* CPR *certification. Restricted to* EHLS majors.

301 Field/Clinical Experience II (1)
Designed to provide the student with an opportunity to practice, apply and master additional skills presented in course work. Experiences will include evaluations, documentation and interpretation of results of exercise testing and program development. Every semester. Prerequisite: EHLS *300, 316, 317;* corequisite EHLS 4/7 or permission o/instructor.

304 Organization and Administration of Leisure Studies (3)
Survey of types of programs, their objectives, content and methods, facilities, budgeting, public relations, personnel management, and policy development. Spring semester.

305 Therapeutic Recreation (3)
Development or programs for physically or mentally ill or convalescent patients: handicapped, retarded, elderly, and other special population groups.

314 Interpretation of EKG I (2)
An introduction to electrocardiography and the interpretation of normal and abnormal cardiac rhythms. Fall semester. Pre or Co-requisite: EHLS *317* or permission *of* instructor.

315 Interpretation of EKG 11(2)
Further study of EKG interpretation including myocardial infractions, stress testing and other diagnostic aids. Spring semester. Prerequisite: EHLS 314; Co-requisite: EHLS 418.

316 Laboratory Methods and Procedures in Exercise Science (1)
The study of physiological functions of the human body during exercise. Fall and spring semester. Pre- or Corequisite: EHLS 317 or *equivalent.*

317 Foundations of Exercise Physiology (3)
Intensive study of various physiologic processes related to exercise. Fall and spring semester. Prerequisites: Chemistry J 21; Biology 208, 209; *or approval of instructor.*

318 Kinesiology (3)
Study of human motion; analysis of human motion as affected by gross anatomy and principles of motor learning. Spring semester. Prerequisites: Biology J *91 or approval of* instructor.

320 Enviromental Health (3)
Major ecological problems relative to individuals, schools, and communities with emphasis upon the teaching-learning process.

325 Leadership and Programing in Leisure Studies (3)
Development of competencies needed for effective recreation leadership and recreation programing techniques for use in a variety of recreational settings. Spring semester.

330 Physical Education in the Elementary School (3)
Practical aspects of planning, organizing, administering, and evaluating program activities, theories of play, principles of movement as they correspond to levels of growth and development of elementary children; teaching methods and materials in elementary physical education. Required for Multidisciptinary School Learning majors. Every semester.

332 Management in Exercise Science and Leisure Sports (3)
Basic overview and survey of management concepts and guidelines associated with exercise science and leisure sport; decision making, leadership training, effective communication, planning, organizing, controlling, time management, budget, and finance. Fall semester. Prerequisite: EHLS *201 or approval of* instructor.

335 Officiating Sports (1)
Rules, interpretations, fundamentals, techniques, and mechanics of officiating seasonal sports. On demand. Prerequisite: EHLS major or approval *of* instructor.

340 Care and Prevention of Athletic Injuries (3)
Analysis of common athletic injuries; emphasis on practical aspects within theoretical framework; laboratory experiences. Spring semester. Prerequisite: Biology *191 or approval of* instructor.

400 Current Topics and Problems in Exercise Science and Sports (3)
Investigation and exploration of selected topics and problems in exercise science and leisure sports significant for pedagogy, management, coaching in both schools and agencies providing sport and leisure services. Summer. Prerequisites: senior level and *approval of instructor or graduate standing.*

401 Measurement and Evaluation in Exercise Science and Leisure Sports (3)
Introduction to basic statistics, measurement, evaluation, tests of neuromuscular ability, muscular strength and endurance, balance, flexibility, motor ability, health related fitness; grading, constructing knowledge tests, measurement of human ability, and instructional outcomes. Fall semester. *Prerequisites: Equivalent* o/EHLS 201, *332;* Mathematics FI20; senior level or approval *of instructor; or graduate* standing.

40Z Philosophical Foundations of Exercise Science and Sports (3)
Identification and implication of prominent philosophical schools of thought as they impact professional decision making in exercise science and sports; emphasis upon development of a philosophical process, logical thinking, values clarification, and moral implications. On demand. Senior level or graduate standing.

404 Motor Learning in Exercise Science and Leisure Sports (3)
Conceptual understanding of the principles of performance of motor skills to include information processing and the functional properties of the motor system. On demand. Prerequisite: EHLS 317 or approval *of* instructor.

405 Management of Athletics and Leisure Sports (3)
Management principles, information retrieval and processing, sport law, public relations, personnel direction, faculty development, financial administration as they relate to sports, athletics, and leisure services. Spring semester. Prerequisites: EHLS *304 or 332; approval of instructor; or graduate* standing.

407 Sociology/Psychology of Exercise Science and Leisure Sports (3)
Emphasis upon exercise science and leisure sports as a socio-cultural psycho-cultural force; psychological and sociological concepts applied to human performance in exercise and sports. Prerequisite: senior level *or graduate* standing.

408 Seminar, Current Advances in Bio-Kinetics (3)
Current advances in kinesiology and physiologic principles of exercise science, athletic coaching, and sports. On demand. Prerequisites: equivalent o/EHLS *317 or 318; approval of* instructor; or graduate standing.

417 Advanced Exercise Physiology (3)
This course details the function of organ systems emphasizing mechanisms of control and regulation during exercise. Fall semester. Prerequisites: Biology *208, 209; Chemistry 122;* EHLS 317; and approval *of* instructor.

418 Exercise Prescription in Health and Disease (3)
This course presents a comprehensive overview of the physical, physiological, and metabolic responses of the human body to exercise testing and training in both health and disease; the processes involved in prescribing safe and effective therapeutic exercise for healthy individuals as well as for patients with heart and lung disease, diabetes, and obesity will be discussed. Spring semester. Prerequisites: EHLS *417 and approval of* instructor.

419 Exercise Prescription Lab (1)
Methods and procedures utilized in exercise testing, exercise prescription and education for healthy individuals and individuals with cardiac, pulmonary or metabolic disease. Spring semester. Co-requisite: EHLS 300 and4I8.

420 Cardiopulmonary Rehabilitation (3)
This course details the functions of the cardiovascular and respiratory systems emphasizing pathophysiology and treatment. Special reference will be made to exercise as a mode of therapy. Spring semester. Co-requisite: EHLS 315 and 419.

431 Teaching Strategies and Materials in Exercise Science and Health (3)
Curricular and media development appropriate for the respective discipline. Fall semester. Prerequisites: EHLS senior; Teaching candidate.

436 Exercise Science and Health Promotion for the Developmentaliy Challenged (3)
Lecture, demonstration, and practical experiences in the study of exercise, health, and leisure sports and their implications for the developmentaliy challenged; emphasis on methods and techniques for teachers, coaches, and exercise leaders in meeting the legal, ethical, and moral obligations of the developmentaliy challenged. *Prerequisites: EHLS 302 or* equivalent and junior *level; or graduate standing.*

450 Safety and Consumer Health Education (3)
Investigation into epidemiologic aspects of accidents; procedures for developing preventive programs; intelligent selection of health products, health-services, health insurance plans, and health careers. Fall semester alternate years. Prerequisites: approval *of instructor and senior or graduate* standing.

451 Family Life Studies (3)
Extended study of problem issues related to family life and human sexuality; development of learning units for use in schools and community. Spring semester alternate years.

452 Problems in Health: Aging and Death Education (3)
Analysis of concepts and attitudes toward aging, death, bereavement, prevention and control of communicable and degenerative diseases. Spring semester. *Prerequisites:* EHLS 100, *302,* 303, or equivalent; senior or graduate standing or approval *of* instructor.

453 Substance Use, Misuse, and Abuse (3)
Extended study of problems and issues related to use, misuse, and abuse of alcohol and orher drugs; development of learning units for use in schools and community. Fall semester alternate years.

455 Methods and Strategies in Health Promotion (3)
Investigation of current curricula and teaching strategies employed in health education. Fall semester alternate years. Prerequisites: approval *of* instructor; senior *or graduate standing.*

456 Research Methods in Exercise Science and Health Promotion (3)
Study of health problems and current professional literature; review of new approaches in techniques and methodology used in health research. Spring and fall semester. Prerequisite: approval *of* instructor or EHLS senior or graduate standing.

479, 480 Internship in Exercise Science and Leisure Sports (6,6)
Supervised internship in leadership and administrative positions; full time contact, minimum eight weeks, concurrent integrative seminars. Every semester. Prerequisite: approval *of program leader and* EHLS department head.

490r Workshop and Seminar (2-4)
Special problems; in-service education for specific groups; research in professional literature and evaluation measures to topics studied. On demand.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental *Honors", page* 36.

497r Research (1-4)
Every semester. Prerequisite: Approval o/EHLS department *head.*

498r Individual Studies (1-4)
Every semester. *Prerequisite: Approval of EHLS department head.*

499r Group Studies (1-4)
Every semester. *Prerequisite: Approval of EHLS department head.*

Human Ecology

Associate Professor T. Bibler, *Head*

The Department of Human Ecology offers concentrations:
-'-Interior Design
—Food and Nutrition
—Child and Family Studies

Human Ecology is an integrative field of study which deals with people in their environments and the reciprocal relationships that humans have with their environments. It encompasses professional study in the areas of child and family studies (including early childhood education), food and nutrition, and interior design.

Human Ecology (B.S.): Child and Family Studies Concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: ENGL 121, 122 (6 hours)
Intensive Writing: 3 hour approved course (3 hours)
Oral Communication: THSP 109 (3 hours)
Computer Literacy: Computer Science 110 (3 hours)
Cultures and Civilizations: Western Humanities I and II (6 hours) and Anthropology 208
Humanities and Fine Arts: Music 111 and THSP 115 (6 hours)
Behavioral & Social Sciences: Political Science 101 and Geography 104 (6 hours)
Natural Sciences: General Science 111/181 and one approved Natural Science course (8 hours)
Mathematics: MATH 214* (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and Related Courses

Art 301
English 228
History 204
University Studies 311
University Studies 340
University Studies 440
Human Ecology core: 340, 350, 402
Child and Family Studies core: Human Ecology 135,240, 241,345,445,446; Exercise Science, Health, and Leisure Studies 302,330; Art 340; Music 340; Theatre and Speech 340

Completion of one of the following options:
Option A (Early Childhood Pre K-4): 34 hours including Education 201,306, 323,400,410,411,412,413,414,420,440
Option B (Child and Family Studies): 27 hours including Human Ecology 304, 306,332,405; Education 101,401; Management 332; Math 210; Sociology 151

For graduation: 2.0 average overall, 2.0 average in College of Education and Applied Professional Studies courses
For licensure: 2.5 cumulative, 2.5 at UTC, 2.5 in education courses with no grade lower than C, 2.5 in content area coursework with no grade lower than C. (see advisor/check sheet for specific courses)

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours
*** If certified as General Education Mathematics**

Human Ecology (B.S.): interior design concentration

The Interior Design program reserves the right to keep one example of the work of each student in each studio course.
Sophomore year portfolio review is required for continuation.

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities 1 and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization I, II and III (9 hours)
Humanities and Fine Arts: Two approved courses in humanities and fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and Related Courses

Computer Science 110; Art 101,104,105, 106,214,215
Human Ecology Core:
Human Ecology 340,350,402
59 hours from Human Ecology including 121, 211, 220, 223,225, 320,321, 322,324,326,327,329,405,412,420,421,422,423,424
2.0 average in all Human Ecology courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Human Ecology (B.S.): food and nutrition concentration

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option (a) Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) OR Option (b) World Civilization I, II and III (9 hours)
Humanities and Fine Arts: Two approved courses in humanities and fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and Related Courses

Economics 101, 102
Chemistry 111 or 121/123
Computer Science 110
Mathematics 210
Political Science 101 or 244
Psychology 101
Sociology 151
Theatre and Speech 109
Human Ecology Core: 340,350,402
•27 hours from Human Ecology including 135, 236,237,330,332,334,335, 336,430,431,432,434,436 and one of the following options:
a. 15 hours from Biology 191, 208, 209, 210; Chemistry 121/123, 122, 351, 352, 466
or
b. 15 hours from Accounting 201,335,336; Management 315,332; Marketing 313

2.0 average in all Human Ecology courses
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

•Students desiring to complete an American Dietetic Association Approved Program in Dietetics must take all courses from option A above plus all of the following:
Accounting 201
Anthropology G208
Management 315 or 332

HUMAN ECOLOGY MINOR

Food and Nutrition: 18 hours including HECO 135,236, 335,434 and 6 hours selected from HECO 237,330,332,334,336,436
Minimum of 8 hours at the 300 400 level
Minimum 2.0 average in the minor

HUMAN ECOLOGY COURSES

120 Design Fundamentals (3)
A study of design as related to the individual and his or her environment; review of the basic theories regarding principles and elements of design with emphasis on using design to solve utilitarian as well as aesthetic problems. Every semester. *Lecture 1 hour, Studio 4 hours.*

121 Architectural Drafting (3)
A basic architectural drafting course, including the study of symbols and drafting techniques necessary to the understanding and drawing of architectural plans. Spring semester. *Studio 6 hours. Prerequisite:* Human Ecology 120.

135 Nutrition (3)
An introduction to nutrition science, emphasizing physiological and biochemical interactions between foods and the human body. Explores the relationship between foods, nutrition, and disease promotion/prevention. Applies nutrition to individual food behaviors.

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum credit *4 hours.*

202 Orientation to the Human Ecology Profession **(1)**
Introduction to human ecology as an area of study focusing on basic concepts that form the foundation of the discipline; history, philosophy, and career options in human ecology. Every semester.

205 **Family Relations: Preparation for Marriage** (3)
A functional approach to understanding cultural and social influences on dating, love, mate selection, sex, and early marriage in America. Every semester.

208 Human Environments (3)
Presentation of ecosystem model and its application to the enhancement of individual and family well being; examination of the biosocial nature of human beings, the nature of human environments, and the relationship between people and their environments. Every semester.

210 Introduction to Merchandising (3)
An introduction to the fashion industry from concept to consumer, including psychological/sociological influences upon consumer decision making; course examines trends, cycles, consumer groups, distribution of fashion goods with emphasis on trade issues; analysis of marketing and merchandising activities of all levels of fashion industry. Fall semester.

211 Consumer Textiles (3)
Modern fibers, yams, fabrics, and finishes for apparel and home furnishings; trade practices and consumer problems. Spring semester and summer. *Lecture 2 hours, lab 2 hours.*

220 Interior Space Design (3)
The study of space planning utilizing the application of techniques for analyzing floor plans through the use of symbols and terminology common to the practice of interior design. Spring semester. Studio 6 hours .

222 Color Systems (3)
Experimentation in color systems and their use in interior design; analysis of psychological impact of color systems on people; correlation of color scheme to total room design; development of skills for various media and tools' used in color **planning. Fall** semester. *Lecture I hour, lab 4 hours.* Prerequisite: Human Ecology 120.

223 Fundamentals of Visual Presentation (3)
An introduction to basic skills, materials, and techniques employed in the visual and verbal presentation of interior design concepts. Fall semester. *Studio 6 hours. Prerequisite:* Human Ecology *121. Corequisite: Human Ecology 220.*

225 Elements of Interior Design (3)
A study of components basic to the art of interior design: wall treatments, window treatments, floor coverings, fabric selections, furniture selections. Spring semester. Prerequisites: Human Ecology 120,220, 223.

236 Food Science (3)
Basic scientific concepts related to the selection, care, and preparation of foods; emphasis on chemical and physical properties and their interaction with environmental variables. Fall semester. *Lecture 2 hours, lab 2 hours-Prerequisite:* Human Ecology 135.

237 Food and Nutrition: Markets, Trends and Behaviors (3)
Nature of the American food market, marketing procedures, resource management, regulations in the food industry, socioeconomic, cultural, and psychological influences in food nutrition behaviors; marketing nutrition education. Spring semester alternate years.

240 Child Development and Observation I (3)
Study of development of children from prenatal period to age three. Includes ecological aspects and effects on development. Instruction in observation skills and directed participation in observational activities. Every semester. Field component. (Formerly HECO 440)

241 Child Development and Observation **II** (3)
Study of growth and development of children from age three to adolescence. Includes ecological aspects and effects on development. Instruction in observation skills and directed participation in observational activities. Field component. Every semester. Prerequisite: Human Ecology *240.*

242 Adolescent Development (3)
Consideration of adolescent developmental, cognitive, social theories and application for teaching. Understanding of peer culture/subcultures and effects of breakdown of social support systems. Field component. Every semester. (Formerly Education 204)

310 Socio-Psychological Aspects of Textiles and Apparel (3)
The examination of the meaning that textiles and clothing carry about people, situations and culture from an individual and a group perspective; textiles and clothing cues that provide a frame of reference for interpreting more abstract social processes, including how people relate to one another. Spring semester. Prerequisites: Human *Ecology 210, Psychology* 101, Sociology 125.

312 History of Fashions (3)
History of fashion from Egyptian period to the present; includes aesthetic, economic, social, and psychological factors influencing fashion; analysis of fashion fundamentals and trends with implications for fashion merchandising. Fall semester.

313 Merchandising Applications (3)
Examines the philosophy, concepts, characteristics, and techniques underlying the planning and control of sales and inventories in manufacturing and retailing; the principles of effective merchandising through mathematical problems. Spring semester. *Prerequisites:* Accounting 201, Human Ecology 2/0, Mathematics 210.

316 Fashion Advertising and Promotion (3)
Principles of sales promotion and analysis of the activities utilized by retail and wholesale firms to influence the sale of merchandise; includes advertising, display, special events, publicity, fashion shows, and personal selling. Fall semester. Prerequisite: Human Ecology *210.*

317 Visual Merchandising (3)
A comprehensive study of the aspects of displaying merchandise from planning to execution at the retail level; focus on both interior and exterior visual presentation including signage, windows, colors, lighting, mannequins, fixtures, floor planning, and promotions. Every other Fall semester. Prerequisites: Human Ecology 120, 210.

318 Textiles and Apparel Quality and Sewn Product Analysis (3)
Examination of the marketing and merchandising decision making involved in textiles and apparel and analysis of sewn products from a quality perspective. Fall semester. *Prerequisites:* Human Ecology 120, *210, 211.*

320 Historic Furnishings (3)
The study of design characteristics of historical furniture including the dominant, socio-economic influences leading to the development of **each** style **- Egyptian to Victorian. Fall semester.**

321 Contemporary Furnishings (3)
A study of characteristics of furnishings and interiors of the late nineteenth century and the twentieth century; includes furniture designers, interior designers, design movements, and effects of die Industrial Revolution and the consequent use of machinery in the production of furniture. Spring semester.

322 History of American Domestic Architecture (3)
A comprehensive survey, period feature-by-feature, of the styles that have had the greatest impact on the development of American architecture. Fall semester.

324 Interior Lighting Design (3)
The study of illumination principles, design criteria, and systems applied to architectural interiors in public and private space. Fall semester. *Studio* 6 *hours. Prerequisite: successful completion of juried portfolio review.*

325 Images of Western Living (3)
Perspectives of the near environment of Western people using a study of styles of architecture, furniture, and clothing of selected historical periods; exploration of the combination of economic, geographic, social, and cultural patterns which influenced their development; focus on evaluating styles and understanding their current impact. Every semester.

326 Residential Interiors (3)
Advanced study of space planning criteria and the selection of furnishings, equipment, materials, and finishes for the residential market; design considerations for special populations (e.g., disabled, aged) explored. Fall semester. *Studio 6 hours. Prerequisite: successful completion of juried portfolio review.*

327 Fundamentals of Kitchen & Bath Planning (3)
A study of the aesthetic and technical elements of kitchen and bath design. Spring semester. Studio 6 hours. Prerequisite: Human *Ecology 326.*

329 Codes and Specifications (3)
The study of interior subsystems and their application to architectural spaces; emphasis on specification guidelines including product performance; **building** codes; **fire, safety, and health regulations. Spring semester.**

330 Experimental Food Science (3)
Chemical and physical factors affecting food preparation, including experimental methods and individual experimentation in selected food problems. Spring semester alternate years. *Lecture 2 hours, lab 2 hours.* Prerequisites: Biology *210, Chemistry 122,* Human Ecology *236.*

332 Life Cycle Nutrition (3)
Application of the principles of nutrition in dietary management for meeting the physiological, psychological, and social needs of individuals and groups throughout the life cycle; focus on the postulated nutrient requirements in various environments and economic levels. Every semester. Prerequisite: Human Ecology 135 or *knowledge of basic principles of nutrition.*

334 Community Nutrition (3)
Fundamentals of nutritional care delivery in community programs; laws and standards affecting dietary practice. Spring semester alternate years.

335 Advanced Nutrition (3)
Food nutrients in physiological and biochemical processes of the body; emphasis on their relationship to health and human development. Fall semester. Prerequisites: *Chemistry 351, 352 or equivalent;* Human *Ecobgy 135 or equivalent.*

336 Sports Nutrition (3)
The study of principles of nutrition and human energy systems as applied to fitness and sport. Every semester. Prerequisites: HECO *135, BIOL 208, 209.*

340 Family Relations: Family Interaction (3)
Family relationships and alliances at each stage of the family life cycle; the family as a small group: role, status, and power interactions of spouses, siblings, and generations; crises and adjustments. Every semester.

345 Management of Early Childhood Environments (3)
A study of **the** organization and structure of the early childhood classroom **environment,** communication and interaction with young children, and rationale for guiding behavior. Field component. Prerequisites EDUC 306, HECO *240, 241*

350 Communication in Family and Consumer Services (3)
Responsibilities, **ethics,** and techniques for the professional in presenting **information and materials** to **the** public through radio, newspaper, television, **and live performances;** general areas of public relations. Every semester.

402 Seminar (2)
Professional procedures **in** consumer and family related professions including trends, developments, challenges, opportunities, ethics, and business **procedures. Every** semester. Prerequisite: *approval of department head.*

405 Human Ecology Practicum (3)
Directed field experience **in** a selected professional area of human ecology, **including** a **weekly** seminar and faculty supervision within an approved **institution,** agency, or business establishment; written application to **department** head required three months prior to **the** semester in which the **student plans** to **register** for the course. Every semester. Prerequisites: *senior status* in *human ecology and approval of department head.*

412 Historic Textiles •(3)
The development of textiles from ancient times to the twentieth century with emphasis upon fiber, color application, fabric construction, and design motifs particular to select countries or cultures. Spring semester. *Prerequisite:* Human Ecology *211.*

413 Fashion and Retail Buying (3)
Principles of merchandise buying, planning, and **inventory** control for retail **stores with** emphasis on computer applications for merchandise planning; **includes procedures for calculating** open-to-buy, assortment, and dollar **planning; the role** of **the** buyer is also analyzed. Fall semester. Corequisites: *Human Ecology 416, 417, 419.*

415 Textiles and Apparel Economics (3)
Examination of the textile and apparel complex as a significant economic sector; provides an overview of the global textile and apparel industries and consideration of the U.S. textiles complex and market within an international context. **Fall** semester. Prerequisites: *Economics 101, 102;* Human *Ecology 210.*

416 Merchandising Management (3)
This course presents **the** general characteristics of merchandising management and explores the attributes necessary for available positions in textiles, apparel, **and retail merchandising** management today. First half of fall semester only. *Prerequisite: all required merchandising courses. Corequisites: Human Ecobgy 413, 417, 419.* Must *be taken the last or* next *to* last semester be/ore graduation.

417 Internship Concepts and Preparation (3)
This course fully prepares students for their required field internship including **assigning each student to his or her intern** business. First half of fall semester only. *Prerequisites: all required merchandising courses; an approved internship application one year prior to anticipated internship. Corequisites:* Human Ecology 416,419. Must *be taken the* last or next *to last semester before graduation.*

419 Merchandising Field Internship (6)
Directed field experience that is required of all merchandising students. **Provides** a **paid full-time** work assignment that gives students a better **understanding** of **the real** merchandising function. Assignments are made in HECO **417.** Second half of fall semester. *Prerequisites: allrequired merchandising courses; an approved internship application one year prior to anticipated internship.* Must *be taken the last or next to last semester before graduation. Graded Satisfactory/Fail.*

420 Management Procedures for Interior Design (3)
General characteristics of management terminology and procedures in the interior design field with a major emphasis placed on the ability to systematize and control the flow of operations, money, materials, and commitments. Spring semester. *Prerequisite: successful* completion *of juried portfolio review.*

421 Advanced Design Synthesis (2)
Advanced problems in design dealing with complex interior and environmental problems devoted to the development of a complete student portfolio and a major design proposal - the senior design thesis - a full semester of work on a self-initiated project based on a strong sense of professionalism and design maturity, a set of working drawings of this project will be presented as part of a juried Senior Exhibition. Spring semester. *Studio 4 hours. Prerequisite: successful* completion *of juried portfolio review.*

422 Contract Interiors (3)
Development of creative ideas in commercial design projects which integrate interior design elements to achieve predetermined goals. Fall semester. Studio 6 hours. Prerequisite:' *successful* completion *of juried portfolio review.*

423 Interior Systems Design (3)
Contract interior space planning factors as they relate to office landscape systems design and barrier-free requirements. Spring semester. Studio 6 *hours. Prerequisite: Human Ecology 422.*

424 Computer-Aided Design for the Built Environment (3)
Project application management of interactive computer graphic systems. Spring semester. Studio 6 hours. Prerequisite: *successful completion of juried portfolio review.*

430 Food Systems Administration I (3)
Management, organization, and administration of food service in institutions. Fall semester alternate years.

431 Quantity Food Service (3)
Principles, methods, and techniques in planning, purchasing, production, and service of food in quantity; selection and use of equipment; quality standards; laboratory experiences in approved local institutions. Spring semester alternate years. Pre- or corequisite: Human Ecology 430.

432 Food Systems Administration II (3)
A continuation of Human Ecology 430 with emphasis on production, manpower, facility, and financial planning in food service and hospitality systems. Fall semester alternate years. Prerequisites: Human Ecology 430, 431.

434 Perspectives in Clinical Nutrition I (3)
The study of diet as it relates to prevention and treatment of disease. Experiences in nutritional assessment techniques. Dietary calculations for obesity, diabetes mellitus, cardiovascular disease, and gastrointestinal disorders. Fall semester alternate years. Prerequisites: HECO 135, *335,* BIOL 208, 209.

435 Diet Therapy (4)
Application of diet designed for the prevention and treatment of diseases which are influenced by food intake; laboratory experiences in diet calculations, nutritional assessment techniques, and patient charting skills. Spring semester alternate years. Lecture 3 *hours, lab 2 hours. Prerequisite(s): Biology 208, 209 or Human Ecology 335.*

436 Perspectives in Clinical Nutrition II (3)
The study of diet and disease; application of appropriate nutritional therapies for endocrine disorders, hypermetabolic conditions, immune system disorders, pulmonary diseases, cancer, liver and renal disease. Spring semester. Prerequisites: HECO *434:*

440 Infant Development and Observation (3)
Explores the developmental needs which characterize the infant period; reviews the various aspects of infant development in families and group care settings; instruction in observation skills and directed participation in observational activities. *Lecture 2 hours, lab 2 hours.*

445 Families: *Heme,* School, Community Partnerships (3)
A study of the family system as ft assumes die child rearing function and parents the developing child throughout the stages of the family life cycle. Special attention is given throughout to the study of parent-professional, parent-community relationships and skills and approaches for building successful partnerships with families. Includes the study 6f families with "special" circumstances, and how professionals can be supportive and facuitative. Every *semester. Field component.*

446 Strategies for Assessing Young Children (3)
Designed to provide an overview of assessment rationale and experiences in administrating a variety of assessments from informal to formal. Field component. Prerequisites: EDUC 323, HEOC 345

495r Departmental Honors (1-3 hours per term, *4t* hours for two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

College of Engineering and Computer Science

Professor Dr. Robert M. Desmond, *Dean*

The College of Engineering and Computer Science is the organizational unit of the University which is responsible for engineering, engineering management, computer science, and industrial technology management programs. Programs are offered which lead to the Bachelor of Science in Engineering degree, the Bachelor of Science degree with a major in industrial technology management, the Master of Science degree in engineering, the Master of Science degree with a major in engineering management, the Bachelor of Science degree with a major in computer science, and die Master of Science degree with a major in computer science. The engineering programs are described under the common heading of engineering. Industrial technology management and computer science programs are described under separate headings immediately following the engineering descriptions. Graduate programs are discussed in a separate publication.

Programs and Administrative Heads
Professor Edwin Foster, Director
Civil Engineering (Structural)
(Vacant), Head
Computer Science (Information Systems, Scientific Applications, Systems Architecture)
Electrical Engineering (Instrumentation and Control, Power)
Professor William Gurley, Director
Chemical Engineering, Environmental Engineering, Mechanical Engineering (Mechanics, Thermal Science)
Associate Professor Philip Kazemersky, Director
Engineering Management, Industrial Engineering, Manufacturing Engineering, Industrial Technology Management

Freshman Engineering and Transfer Program
Professor Mike Jones, Director

The full-time faculty providing instruction for the above programs have extensive experience in engineering or computer science, professional practice, research, and higher education. In addition, the college draws on the talents of adjunct faculty who are employed in professional capacities in a variety of industrial and governmental settings.

Also, the Cranston Pearce Center for Applied Engineering and Technology provides research and development opportunities for both faculty and students. Projects range from basic design and product development to large scale system studies on power distribution networks. The basic purpose of the center is to help stimulate economic development of the region through an infusion of technology into the marketplace. This center works in conjunction with the Center of Excellence in Computer Applications and widi the Burkett Miller Chair of Excellence in Management and Technology to pursue appropriate technology applications.

The B.S. Engineering program is accredited by the Engineering Accreditation Commission/Accreditation Board for Engineering and Technology (ABET), the national accrediting agency for engineering programs. The Cooperative Engineering program is also nationally accredited by ABET. Graduate programs are discussed in a separate catalogue.

Transfer Credit
Credits received by transfer for required engineering courses in either engineering or industrial technology management programs require a grade of C or better. Although equivalents will be awarded for D grades, students must retake the courses.

Engineering

Bachelor of Science in Engineering (B.S.E.) Program

The engineering curriculum provides a four year program with emphasis on engineering fundamentals, design, projects and team experience, mathematics, laboratory sciences, communication, humanities and social sciences. The program is structured around an interdisciplinary core of prescribed courses which provide the student with a broad-based background in the engineering sciences. The specialty courses, taken in the junior and senior

years, provide for in-depth study in a focused area of engineering, such as electrical or mechanical engineering.

In addition to providing an emphasis on engineering fundamentals, the B.S.E. program equips the student with an understanding of engineering economic analysis, statistical analysis tools, an appreciation of total quality management principles, and stong decision making skills. These capabilities are developed not only through formal coursework, but also through design projects.

The engineering design experiences begin with freshmen team design projects and are continued throughout the curriculum. These projects emphasize the application of engineering principles, economics, communications, safety considerations, and ethics.

Following three years of building-block design experiences, senior students work collectively in a year-long design project. This capstone experience involves a comprehensive and interdisciplinary approach to defining issues and reaching reasonable solutions to a complex engineering task. This experience allows the student to appreciate that many, if not most, engineering projects require an integration of more than one discipline, and it allows the student to participate, in a multidisciplinary environment as part of a team in making decisions and reaching closure on a project.

Since engineering functions are increasingly dependent upon computers, the study of the computer and its use is integrated throughout the curriculum. Introduction to the computer begins with a course in engineering computations taken during the freshman year. A computer application and numerical methods course follows during the sophomore year. Together, diese courses provide the background for the use of the computer during the remainder of the engineering program.

Laboratories are an integral part of the engineering programs. They develop an understanding of engineering instrumentation, experimental techniques, fundamental principles, and communications skills. Consequently, laboratory courses are required in each of the four years of study toward the engineering degree.

Engineering (B.S.E.)

General Education (see pages 29-31 for list of approved courses)

Each B.S.E. engineering student must complete the following general education sequences:

Rhetoric and Composition: English 121, English 122 (6 hours)

Intensive Writing: One approved course in intensive writing (3 hours)

Oral Communication: Completion of oral communication requirement within major (3 hours)

Computer Literacy: One approved course in computer literacy (3 hours)

Cultures and Civilizations: Either Option a: Western Humanities I and II (6 hours) *and* Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)

Humanities and Fine Arts: One approved fine arts course (3 hours)

Behavioral & Social Sciences: Economics 101 and 102 or two approved behavioral science courses. (6 hours)

Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)

Mathematics: Math 151/152 (4 hours)

Statistics: One approved statistics course (3 hours; approved related course below may apply)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

Major and related courses vary depending upon the specialization (see below); however, all B.S. Engineering courses will require at least:

Mathematics 151/152,161,162,212, 245, 255
Chemistry 121,123
Physics 231,281
Engineering Core (47 to 57 hours)
Speciality Courses: 24 hours minimum (including senior design)
Electives depend on program selected
Minimum degree requirements: 134 hours (144 for co-op graduates)
2,0 average in all engineering courses

Minimum of 30 hours of 300 and 400 level courses

Specializations

In general, all engineering students take a common core of courses during their first two years. Specialization courses are taken during the diird and fourth year. A student may qualify for a second specialization by taking a minimum of 8 additional senior specialty hours and by meeting the specific requirements for die second specialty. Only one B.S.E. degree will be awarded, but the permanent academic record will indicate the second specialization. The requirements for die specializations are as follows:

Chemical Engineering

Special requirements *of this concentration dictate accurate* advising regarding prerequisite *courses, etc., as early as the freshman year.*

General Education requirements (see above)
Major and related courses
Mathematics 151, 152, 212,245, 255
Chemistry 121,122, 123,124,351, 352,353,354, 371,372
Physics 231,281
Engineering Core Courses: 47 hours including 103, 104, 112, 113, 114, 124, 225,246,247,270,271,303,307,308,322,328,329,340,352,380,410, 411
Specialty Engineering Courses: 26 hours including 331, 405, 430, 432, 433, '434,435,493,494*
2.0 average in all engineering courses
Total hours: 144 (154 for co-op graduates)

***For qualified students, Engineering 495 (Honors) may be substituted for 4 of the 7 hours required in Engineering 493, 494.**

Civil Engineering (Structural)

General Education requirements (see above)
Major and related courses
Mathematics 151,152,212, 245, 255
Chemistry 121,123
Physics 231,232, 281, 282
Engineering Core Courses: 57 hours including 102, 103, 104, 112, 113, 114, 124,225,246,247,248,271,272,303,307,308, 322,328,329,340,352, 371,372,380,410,411
Specialty Engineering Courses: 24 hours including 460,462,465,468,493,494* plus approved elective
2.0 average in all engineering courses
Total hours: 136 (146 for co-op graduates)

***For qualified students, Engineering 49S (Honors) may he substituted for 4 of the 7 hours required in Engineering 493,494.**

Electrical Engineering

(Two tracks: Instrumentation and Control or Power)

General Education requirements (see above)
Major and related courses
Mathematics 151,152,161,162, 212, 245, 255
Chemistry 121,123
Physics 231,232, 281, 282
Engineering Core Courses: 53 hours including 102,103,104,112,113,114, 124,225,246,247,248,271,272,303,307,308, 322,340,352,371,372, 380,410,411
Specialty Engineering Courses (Instrumentation and Control): 34 hours including325, 373,375,377,378,379,470,473,477,478,493,494*
Specialty Engineering Courses (Power): 35 hours including 325, 373, 375, 377,378,379,470,471,472,473,479,493,494*
2.0 average in all engineering courses
Total hours: 142 Instrumentation, 143 Power (152-153 for co-op graduates)

*For- qualified students, Engineering 495 (Honors) may be substituted for 4 of the 7 hours required for Engineering 493,494.

Environmental Engineering

General Education requirements (see above)
Major and related courses
Biology 121
Chemistry 121,122,123,124,341, 351,353
Environmental Science 150,410
Geology 111,445
Mathematics 151,152,161,162, 212, 245, 255
Engineering Core Courses: 47 hours including 102, 103, 104, 112, 113, 114, 124,225,246,247,270,271,303,307,308, 322,328,329,352,380,410, 411
Specialty Engineering Courses: 20 hours including 331,430. 433, 435, 437, 493,494*
2.0 average in all engineering courses
Total hours: 144 (154 for co-op graduates)

•For qualified students, Engineering 495 (Honors) may be substituted for 4 of the 7 hours required in Engineering 49.3,494.

Industrial Engineering

General Education requirements (see above)
Major and related courses
Mathematics 151, 152,161,162, 212, 245, 255
Chemistry 121, 123
Physics 231, 232, 281,283
Engineering Core Courses: 57 hours including 102,103, 104,112,113, 114, 124,225,246,247,248,271,272,303,307,308,322,328,329,340,352, 371,372,380,410,411
Specialty Engineering Courses: 22 hours including 354, 450,457,493,494* plus approved electives
2.0 average in all engineering courses
Total hours: 134 (144 for co-op graduates)

•For qualified students, Engineering 495 (Honors) may be substituted for 4 of the 7 hours required in Engineering 493,494-

Engineering Management

General Education requirements (see above)
Major and related courses
Mathematics 151,152,161, 162, 212, 245, 255
Chemistry 121,123
Economics 101,102
Physics 231,281
Engineering Core Courses: 53 hours including 102,103,104,112,113, 114, 124,225,246,247,248,271,272,303,307,308, 322,328,329,340,352, 380,410,411
Specialty Engineering and Related Courses: 34 hours including Engineering 358, 453, 456, 457, 458, 493, 494*. Accounting 201, 202, 305 or 306; Psychology 406.

2.0 average in all engineering courses
Total hours: 138 (148 for co-op students)

Manufacturing Engineering

General Education requirements (see above)
Major and related courses
Mathematics 151, 152,161,162, 212, 245, 255
Chemistry 121,123
Economics 101, 102
Physics 231,281
Engineering Core Courses: 53 hours including 102, 103, 104, 112, 113, 114, 124,225,246,247,248,271,272,303,307,308, 322,328,329,340,352, 380,410,411
Specialty Engineering Courses: 29 hours including 354, 358, 371,372,450, 456,457,458,493,494*

2.0 average in all engineering courses
Total hours: 136 (146 for co-op students)

•For qualified students, Engineering 495 (Honors) may be subsituted for 4 of the 7 hours required in Engineering 493,494.

Mechanical Engineering

(Two tracks: Mechanics or Thermal Science)
General Education requirements (see above)
Major and related courses
Mathematics 151, 152, 161,162, 212, 245, 255
Chemistry 121,123
Physics 231, 232, 281,282
Engineering Core Courses: 57 hours including 102, 103, 104, 112, 113, 114, 124,225,246,247,248,271,272,303,307,308, 322,328,329,340,352, 371,372,380,410,411
Speciality Engineering Courses (Mechanics): 24 hours from 348,405, 442,447,493,494*, plus two courses selected from 445, 446 or 468.
Speciality Engineering Courses (Thermal Science): 24 hours including 331, 405,440,441,443,447, 493,494*
2.0 average in all engineering courses.
Total hours: 136 (146 for co-op graduates)

•For qualified students, Engineering 495 (Honors) may be subsituted for 4 of the 7 hours required in Engineering 493,494. .

Career Preparation for Other Fields

By carefully selecting electives, students may prepare to pursue careers outside engineering. For example, a student may desire to study medicine, law, business, or a number of other disciplines. Such plans usually require additional coursework beyond that required for the engineering degree. However, engineering spudy is considered to be excellent preparation for such careers.

For guidance and assistance concerning any special program, the student should contact one of the directors or the dean of the College of Engineering and Computer Science in order that an appropriate course of study can be developed.

Industrial Technology Management Program

Assistant *Professor* Philip Kazemersky, *Director*

The industrial technology management program is an interdisciplinary program leading to a Bachelor of Science (B.S.) degree. The purpose of the program is to provide quantitative and qualitative engineering and business skills for problem solving. The program is intended as advanced preparation for the engineering technologist to serve a leadership role in a technical organization.

Industrial Technology Management (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: English 121, English 122 (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Either Option a: Western Humanities 1 and II (6 hours) *and* Nonwestern. Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: One approved fine arts course (3 hours)
Behavioral & Social Sciences: Economics 101 and 102 or two approvedbehavioral science courses. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: Math 151/152 (4 hours)
Statistics: Business Administration 211 (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Math 145, 151/152, 161/162
Chemistry 121, 123
Economics 101, 102
Engineering 211, 352, 354, 358, 380, 410, 452, 453, 455, 456, 457, 458
Accounting 201, 202, 305
Management 211, 212, 310, 311, 452
Finance 302
Marketing 313
Psychology 406

Technical Electives 23 hours: The hours may come from 100 and 200 level engineering or physics. They may also come from an engineering technology curriculum. Advisement should be sought from program faculty as early as possible.

2.0 average in all engineering, accounting, finance, management, marketing and technical elective courses.

Minimum of last 60 hours taken from a four year degree granting institution.
Minimum of 30 hours of 300 and 400 level courses
Total hours: 128 (minimum)

Note: No more than 32 hours may be taken in the College of Business Administration and credited toward the degree.

Cooperative Engineering Program

Professor Michael Jones, Adviser

In addition to the basic four-year program a five-year optional eooperative program is available. In this program students alternate between a term in school and a term in industry. Typical students will receive their baccalaureate degrees after five years and will obtain approximately 20 months of industrial work experience. This program is designed to: (1) provide practical experience which relates academic studies to industry requirements, (2) give the student a better understanding of human relations in industry, and (3) assist the student financially. The financial benefits to the student are usually adequate to cover most of the student's college expenses while obtaining the B.S.E. degree.

This program is open to any UTC engineering student who has at least a 2.5 cumulative grade point average, whose class work and school activities indicate that he or she is dependable and capable, and who is acceptable to a cooperative company. In general, a student is admitted to this program at the end of the freshman year.

More specific information concerning the program is given in the following:

(1) *Scholastic requirements* A student must have at least a 2.5 cumulative grade point average (out of 4.0) to be enrolled in the program. Further, the student must maintain a 2.25 cumulative grade point average to remain in the program. If the student fails to attain at least a 2.0 average in any semester while participating in the program, the student will be required to meet for advising to determine further enrollment in the program.

In general it is expected that co-op students will maintain a grade point average considerably above the 2.25 minimum.

(2) Registration Co-op students are required to register each term (including each term in industry) as a co-op student. A $25 fee will be assessed the student for registration during the work term.

(3) Cooperative Seminar All alternating engineering and computer science co-op students are expected to register and participate in Engineering 390r (Cooperative Seminar) during the term in school immediately following a work assignment. This seminar is designed to discuss and report on projects conducted as a part of the cooperative work assignment and to discuss topics relevant to the engineering and computer science profession.

(4) Reports Student participants are required to file a 1-3 page work report with the UTC Co-Op Office concerning the student's work at the end of each work term.

(5) Work Schedule Co-op students are expected to attend school full-time during their first year and last year in the program. They will alternate each term (between school and work) during the three years between their first and last year in the program. (A term is considered to be either first semester, second semester, of a full summer term.) Typical co-op schedules follow the list of engineering courses. Note that a work term precedes each registration for Engineering 390r.

(6) Co-op Graduate A co-op student will be certified as a co-op graduate upon graduation if he or she has completed at least 3 alternating co-op work terms and meets the degree requirements below.

Degree Requirements

A B.S.E. cooperative engineering student graduate completes all degree requirements of the B.S.E. graduate listed above, plus 10 additional hours in Engineering 390r, Cooperative Seminar.

ENGINEERING COURSES

A minimum *grade of* C must *be made* in *any* engineering *course used as a prerequisite for any other* engineering *course*.

001-007 Cooperative Work Experience (0)
Consecutive cooperative engineering work terms as a part of the cooperative engineering program. Student participation in off-campus work terms in industry (work term defined as either first semester, second semester, or a three month summer term in industry). Every semester.

102 Engineering Graphic Communication (3) **CORE**
Multiview projection, sectional views, auxiliary views. Sketching. Construction of graphs, descriptive geometry, including points, lines, and planes in auxiliary views. Every semester. Lecture *2 hours,* laboratory 2 *hours. Corequisite:* Mathematics *145 or equivalent.*

103 Basic Engineering Science (3) CORE
Introduction to basic concepts of engineering. Physical quantities, units, dimensions, vectors; formulation of engineering problems. Calculus-based analysis of fundamental dynamics; motion along a straight line and in a plane. Newton's 1st, 2nd, and 3rd Laws of Motion plus applications. Work and energy. Impulse and momentum. Rotational motion. Every semester. Lecture 3 hours. *Corequisites:* 113. *Co- or Prerequisites: 112, Mathematics 151 and* 152.

104 Vector Statics (3) CORE
Vector statics operations and applications; particle equilibrium, force system resultants, equilibrium of a rigid body. Structural analysis; trusses, solution techniques. Center of gravity and centroid. Internal forces. Friction. Moments of inertia. Elasticity. Temperature and expansion. Quantity of heat. Mechanisms of heat transfer. Every semester. *Lecture 3 hours. Corequisite: 114. Co-* or Prerequisites: ***Mathematics 161 and 162. Prerequisite: 103 with a grade* o/C or *better.***

112 The Freshman Seminar for Engineers (1) CORE
An introduction to the engineering profession, engineering education and computer skills in an engineering career. Applicable computer skills such as word processing, speadsheet, graphing, presentation and communications programs. Fall and Spring. *Pre or corequisite:* MATH *144.* Course graded satisfactory/no credit.

113 **Freshman Engineering Laboratory (1) CORE**
Laboratory experiments to support and enhance the topics listed from Engineering 103. Introduction to professional aspects of engineering, including ethics and observation of engineering practice. Written and oral presentations included. Continues objectives of Engineering 112. *Every semester. Laboratory 3 hours.* ***Corequisite:* ENGR 103.**

114 Freshman Engineering Design (1) CORE
Introduction to the design process in engineering including historical perspective, problem definition, idea generation, and simple decision making. Design exercises culminating in a conceptual group design project, with application of basic engineering science. Computer aided design (CAD) experience included. Continues objectives of Engineering 112. Written and oral presentation included. ***Every semester. Laboratory 3 hours. Corequisite: 104.***

124 Introduction to Engineering Computations (3) CORE
Flow diagram representation of processes. Development of calculation algorithms for computer solution. Experience in solution of typical engineering problems with a programmable graphing calculator and high level ditigal computer programming language. Introduction to PC or workstation compilation, execution, and file **manipulation. Every semester.** ***Lecture 3 hours. Prerequisite: Mathematics 145 or equivalent.***

199r Special **Introductory Topics in Engineering (1-4)**
Introductory treatment of a fundamental area in engineering, varying from term **to term. On demand.** ***Prerequisite: approval of instructor and dean.***

200 **Structures in Architecture** (3)
The history, esthetics, functional beauty, and behavior of architectural structures will be presented along with the economic, environmental, social, political, and scientific factors which were effected and affected by them. On demand. Lecture 3 **hours.** ***Prerequisite: high school algebra and geometry.***

211 Pollution Controls (3)
The emergence and solution of pollution problems. Discussion of fundamental ideas and policies contributing to pollution problems. Pollution is examined from industrial, political, and social perspectives. Included are role-playing experiences designed to illustrate the effects of various policies on the quality of life in a simulated **community. Fall semester.** ***Lecture 3 hours. Prerequisite: sophomore* standing.**

225 **Engineering Computations and Numerical Techniques (3) CORE**
Solution of engineering problems *with* scientific calculator and digital computer. A high-level programming language and commercial software may be used. Experience in solution design, implementation, and documentation. Application of numerical techniques to nonlinear equations, sets of linear equations, curve-fitting, integration, and ordinary differential equations. Error analysis, uncertainty. Fall and Spring. *Lecture 3 hours.* ***Prerequisite: Engineering 124 with grade* o/C or better. Pre or *corequisite: Mathematics 245.***

246 Mechanics of Materials (3) CORE
Stress-strain concepts and relations. Bending, shear, torsion, and deflections. Euler columns, repeated loading and connections. Every semester. Lecture 3 hours. **Prerequisites:** ***102,104 with grades* o/C or better.** ***Corequisites: 247, Mathematics 245.***

247 Mechanics Laboratory (1) CORE
Laboratories that include measurement and accuracy, hardness and impact strength, modulus of elasticity, torsion, beam bending. Design project: analysis, design and test of a structure. Emphasis on individualized project. Every semester. Laboratory 3 hours. *Corequisite: 246.*

248 Dynamics (3) CORE
Rectilinear, curvilinear, and rotary motion. D'Alembert's principles of work and energy. Impulse and momentum, impact. Three-dimensional kinematics and **dynamics. Every semester.** ***Lecture 3 hours. Prerequisites: 104 widx grades* o/C or better.** ***Corequisite: Mathematics 245.***

270 Electrical Circuits and Systems (3)
Introduction to analysis of electrical systems. Fundamental engineering principles of electrical system components. KirchhofPs laws. Resistive circuit analysis. Circuit theorems. Sinusoidal steady-state circuit analysis. Circuit power and energy. First-order and second-order transient circuit analysis. Spring semester. Restriced to BSE students specializing in Environmental Engineering and Chemical Engineering. Prerequisites: Engineering *225 with a grade* o/C or better, Mathematics *245. Corequisite:* ***Engineering 271***

271 Electrical Circuits Laboratory (1) CORE
Introduction to laboratory instrumentation, measurement techniques, electrical circuit elements and circuit behavior for DC, AC and transient sources. Digital computer analysis of electrical circuits. Spring semester and summer. *Laboratory 3* ***hours. Corequisite: 270 or 272.***

272 Electrical Circuits (3)
Introduction to circuit analysis. Kirchhoffs laws, circuit theorems, DC circuit analysis, phasors, AC circuit analysis, transient response of dynamic circuits. Digital computer analysis of electrical circuits. Spring semester and summer. *Lecture 3* ***hours. Prerequisites:* Engineering 225 *with grade of Cor better, Physics 231, Mathematics 245. Corequisite:* Engineering *271* •**

303 Thermodynamics (3) CORE
Classical thermodynamics with emphasis on first and second laws of thermodynamics. Property relationships, chemical equilibrium, and cycle analysis. **Fall semester and summer.** ***Lecture 3 hours. Prerequisites: 104 with grade of Car better, Mathematics 245.***

307 Fluid Mechanics (3) CORE
Fluid statics and kinematics; fluid dynamics including Bernoulli, continuity and momentum equations; fluid measurements; viscosity; compressible and incompressible flow; laminar and turbulent flow; flow in pipes and open channels; model studies; lift and drag. Fall and spring semester. Lecture 3 *hours.* Prerequisite: 104 with grade o/C or better; Mathematics 255; Corequisite 308.

308 Fluid Mechanics Laboratory (**1**) CORE
Laboratories that include pressure, quantity and property measurements: impulse, momenturm and energy concepts; hydrostatic and buoyancy forces; pump and turbine applications; open channel flow; wind tunnel studies. Design experience. **Fall and spring semester.** ***Lecture 3 hours. Corequisite: 307.***

322 Probability and Statistics for Engineering (3) CORE
Introduction to probability and statistical methods with application to engineering problems. Discrete and continuous distributions. Elementary sampling, point estimation, interval estimation, and hypothesis testing. Fall, Spring and Summer. **Lecture 3** ***hours. Prerequisites: Engineering 124 with grade of Cor better, Mathematics 255.***

325 Signals and Systems (3)
Time, sequence and frequency domain analysis of linear continuous-time and discrete-time systems. Direct solution methods for differential and difference equations, impulse response, convolution. LaPlace, Fourier and Z transform methods. State variables for discrete and continuous systems. Fall semester. *Lecture* ***3 hours. Prerequisites: 271, 272 with grades of Cor better, Mathematics 245, 255.***

328 Control Systems (3) **CORE**
Classical feedback control systems for continuous time systems. Block diagrams and performance criteria. Root locus, frequency methods and state space approach. **Fall semester. Lecture 3** ***hours. Prerequisites: 225, 248, 271, and 270 or 272 with grades of Cor better. Corequisite: 329.***

329 Control Systems Laboratory (1) CORE
Experimental and simulation studies of dynamic engineering systems. System identification and feedback controller design. Fall semster. Laboratory 3 hours. ***Laboratory 3 hours. Corequisite: Engineering 328.***

331 Chemical Process Principles (3)
Quantitative relations of chemical reactions and physico-chemical processes. Calculations based on gases, vapors, humidity, and process material balances. Study of industrial processes involving thermophysics, thermochemistry, and heat balances. Formerly 431. Spring semester. *Lecture* 3 *hours.* Prerequisites: *303 with grade* **o/C** *or better, Chemistry 121 and 123.*

340 Engineering Materials Science (3) CORE
Study of the science of solid materials, including metals, ceramics, plastics, and semiconductors. Nature and fundamental characteristics stressed. Atomic and macroscopic perspectives. Fall semester and summer. *Lecture 3 hours. Prerequisites: Chemistry* **12/** *and 123, Physics 231.*

348 Kinematics & Dynamics of Machinery (3)
Kinematic analysis of plane mechanism linkages, analysis and synthesis of cam-follower mechanisms, and gear trains. An introduction to the synthesis of planar mechanisms-linkages and static and dynamic force and torque analysis of plane mechanisms with balancing using the computer. Spring semester. Lecture 3 *hours. Prerequisites: 248 with grade of Cor better,* **Mathematics 255.**

352 Engineering Economy (3) CORE
Economic decisionmaking for engineering systems. Choice of alternatives by equivalent annual cost, rate-of-return, present worth, and benefit-cost methods. Tax influences, statistical decisionmaking, replacement policy. Lecture 3 *hours. Corequisites: Engineering 380 or* **permission** *of instructor.*

354 Work Measurement and Design (3)
Techniques for analysis and improvement of work methods; principles of motion economy, process charts, work sampling, standard data development, performance rating, predetermined time systems, and wage incentive systems. Emphasis on man-machine interfaces (ergonomics) and productivity improvements. Computer applications and design project included. Spring semester. Lecture 2 hours, laboratory 3 hours. Prerequisite ENGR 322 or BMGT 211 with *a grade* o/C or better.

358 Manufacturing Processes (3)
In-depth study of the proper selection and sequencing of manufacturing processes including: foundry, hot and cold forming of metals, welding, heat treating, machine operations, thermal processing, and inspection. Lecture 3 *hours. Prerequisite: 340 with grade of Cor better.*

371 Electronic and Machinery Laboratory (1) CORE
Behavior of solid state devices, digital computer analysis of electronic circuits, digital circuits, transformer characteristics, machine experiments. Design projects. **Fall semester.** *Laboratory 3 hours. Corequisite: 372.*

372 Electronics and Machinery (3) CORE
Analog and digital electronics and electric machines. Semiconductors, transistor amplifiers. Digital signals and circuits, microprocessors. Electric power; polyphase circuits, magnetic circuits and rotating electric machines. Fall semester. Lecture 3 *hours.* **Prerequisites:** *271, 272 with grades of C or* **better, Physics** *232 and 282. Corequisite: 371.*

373 Automatic Control Systems Analysis arid Design (3)
Analysis and synthesis of feedback control systems for continuous and discrete time systems. Performance criteria. Routh-Hurwitz, root locus, Nyquist, Bode, and state space methods for stability determination. Analytic and computer aided techniques for design of systems to meet performance standards. Spring semester. Lecture 3 **hours. Prerequisite: 325** *with grade of Cor better. Corequisite: 379.*

375 Electromagnetic Fields and Waves (3)
Elementary fields and waves, static electric and magnetic fields; potential and vector fields; Gauss's Law; Ampere's Law; line integrals; vector calculus methods; Biot-Savart Law; time varying electric and magnetic fields; Maxwell's equations. Spring semester. Lecture 3 *hours. Prerequisites: 372* with grade o/C or better; *Physics 232 and 282;* Mathematics 245, 255.

377 Advanced Electronics (3)
Study of advanced topics in electronics. Design of operational amplifier circuits, including amplifier errors and impedance considerations. Design of high frequency operational amplifier circuits. Design of active filters. Design of nonlinear and pulse shaping circuits. Advanced topics in digital electronics. Application of CAE techniques in electronic equipment design. Spring semester. *Lecture 3 hours. Prerequisites: 371, 372 with grades of Cor better. Corequisite: 378.*

378 Advanced Electronics Laboratory (1)
A series of projects in advanced electronics culminating in a major design project. Spring semester. Laboratory 3 hours. Corequisite: *377.*

379 Dynamic Systems Laboratory (1)
Laboratory exercises in the simulation of dynamic systems and the design of automatic controls. Includes use of MATLAB for analysis, simulation and design verification. Spring semester. Laboratory 3 *hours.* Corequisite: 373.

380 Introduction to Engineering Design (3) CORE
Introduction to the design process in engineering. Consideration of design lifecycle that includes design methodology, decision making, technical project management, quality and reliability engineering, concurrent engineering, teamwork, written and oral communication. Includes team design project. Lecture 2 *hours. Project 3 hours. Prerequisites:* completion o/36 *hours* in Engineering CORE, including 225 with grades o/Corbetter. Every semester. Corequisite *352 or approval of* instructor.

390r Cooperative Seminar (2-4)
Seminar for developing, discussing, and reporting projects carried on as a portion of the cooperative work assignment. Written and oral report required. Every **semester. Maximum** *of 15* **cumulative hours.** *Course graded on satisfaaorylno-credit basis.*

405 Heat and Mass Transfer (3)
Fundamental principles of heat, mass, and momentum transfer; application to macroscopic systems. Special emphasis on heat transfer by conduction and convection; analogy between heat and mass transfer. Design experience included. **Fall semester. Lecture .3** *hours. Prerequisite: 307, 308 with grades* **o/C or better.**

410,411 Seminar (1,0) CORE
Professional, ethical, and technical aspects of engineering. Fall semester, 410; spring semester, 411. Both semesters required. Course graded on a satis/actory/no-credit *basis.* Normally taken as corequisite with 493, 494.

430 Chemical System Design (3)
Application of systems design techniques to the design of chemical processes. Discussion of case studies including separation processes, heat exchanger networks, and process utilities. Individual or group design problems. Spring semester. *Lecture* **3** *hours. Prerequisites: 380,432, or437,435* **with grades** *of Cor better. Corequisites: 433 and 434 or ESC 410.*

432, 433 Chemical Operations I and II (3,3)
Fundamental variables of chemical operations; generalized treatment of mass-transfer operations including separation processes. Multi-component phase equilibria. Application of fundamental principles of chemical operations for systems with simultaneous heat, mass, and momentum transfer. Design projects both semesters. 432 fall semester/433 spring semester. *Lecture 3 hours.* Prerequisites :307, **308,** *331 with grades of Cor better.*

434 Chemical Kinetics and Reactor Design (3)
Concepts of chemical kinetics applied to reactor design. Effects of temperature, pressure, concentration, and catalysis on rates of chemical reactions. Design of batch, backmix, tubular, and fluidized bed reactors. Individual or group design project. Spring semester. Lecture 3 hours. Prerequisites: 331,405 with grades o/C or better, Chemistry 371.

435 Chemical Processes Laboratory (1)
Laboratory exercises in chemical operations, such as binary distillation, batch distillation, stripping, rectification, flooding and gas absorption. Design projects. Fall semester. Laboratory 3 *hours.* Prerequisite: 331 with grade o/C *or better.* ***Corequisite: 432 or 437'.***

437 Waste Management (3)
Survey of the regulations pertaining to industrial and municipal wastes. Including but not limited to toxic and hazardous wastes. Survey of approved disposal techniques. Design considerations. Case studies. Individual or group design project. Fall semester. Prerequisite: 331 .Chemistry 34J, 351.

440 Advanced Fluid Dynamics (3)
Principles of continuity, momentum, and energy applied to flow measurements, turbomachinery, open channel flow, compressible flow, and computational fluid mechanics using text and/or supplemental software. Design experience. Fall **semester.** *Lecture 3* **hours. Prerequisites:** *303, 307 308 with grades of Cor better.*

441 Energy Conversion (3)
Broad based energy conversion as applied to steam power, gas turbines, internal combustion engines, and nuclear power systems with combustion analysis using appropriate computer software for analyzing equilibrium combustion products. Design experience. Spring semester. *Lecture 3 hours. Prerequisites: 303, 307, 331, 405 with grades of Cor better.*

442 Machine Design (3)
The analysis and design of machine elements including fatigue-failure analysis of shafts, springs, screws, brakes, clutches, chains, belts, welds and rivets, lubrication of journal, ball and roller bearings, and spur, helical, bevel, and worm gears. Spring semester. *Lecture 3 hours. Prerequisites: 248, 348 with grades of Cor better.*

443 Thermal Component Design (3)
Design of individual components of thermal systems. Economic tradeoffs in sizing, choice of materials, number of passes, and other design criteria. Examples of heat exchangers, refrigerators, steam cycle components, and modern, innovative concepts. Spring semester. *Lecture 3 hours.* Prerequisites: *307, 308, 331, 380, 405 with grades of Cor better. Formerly 436.*

445 Mechanical Vibrations (3)
Free and forced vibrations of damped and undamped systems; single and multiple degrees of freedom using lumped parameter analysis. Matrix rotation: sweeping and rotation techniques. Design experience included. Spring semester. *Lecture 3 hours. Prerequisites: 248, 348 with grades of C or better; Mathematics 245, 255.*

446 Advanced Mechanics of Materials (3)
Statically indeterminate structures; introduction to theory of elasticity; special topics in mechanics of materials. Design experience included. Fall semester. *Lecture 3 hours. Prerequisites: 246 with grade of Cor better; Mathematics 245,255.*

447 Mechanical Engineering Laboratory (2)
Laboratory **will provide** experiences with instrumentation required for measuring temperature, pressure, rotational speed, strain, velocity, liquid and gas flow rates, and combustion products. The lab will include fatigue, vibration, energy conversion and utilization testing, and data acquisition. Design experience. Fail and Spring semesters. Lecture 1 *hour plus laboratory 3 hours. Prerequisites: 303, 307, 308, 331, 348 withgrades of C or better. Corequisites: 405, 445.*

450 Industrial Engineering Design (3)
Design of operations, facilities, and project controls. Topics include process organization, materials handling, information handling, scheduling, and resource allocation. Case studies. Design project included. Spring semester. *Lecture 3 hours. Prerequisite: 380 with grade of Cor better.*

453 Project Design (3)
This course will examine the design-manufacturing interface. The emphasis is on design of products for manufacturing including: functional design, design for manufacturability, value analysis, part and process simplification, design for automated assembly, design for reliability and maintainability, planning, and alternative manufacturing methods. Design project. Spring semester. *Lecture 3 hours. Prerequisite:* ENGR 358, 380, *with grades of Cor better.*

455 Industrial Safety Engineering (3)
History, accident cost analysis, methods, and techniques developed for reducing and preventing accidents in industry, motivating safety, plant inspection, guarding of equipment, health hazards and their control, accident records and reports, employee selection, placement and counseling. Primarily elective for B.S. in engineering management. On demand. *Lecture 3 hours.*

456 Computer Integrated Manufacturing Systems (3)
Basic concepts of modern manufacturing and related control systems. Techniques include flow-line production, numerical control, industrial robots, CAM, group technology, and flexible manufacturing systems. Design applications. On demand. Lecture 3 hours; *laboratory work included. Prerequisites: 225, 322 wid\ grades ofC or better, Mathematics* 161 *and 162 or equivalent.*

457 Quality Control (3)
Detailed study of theory and methods for the design and analysis of quality systems. Statistical Process Control (SPC) including control charts for attributes and variables, and process capability analysis. Acceptance sampling. Fall semester. Lecture 3 hours; *laboratory work and design experience included. Prerequisite:* ENGR *322 or* BMGT *211 with grade of Cor better.*

458 Industrial Plant Layout (3)
Types and techniques of plant layout and location. Methods and computer algorithms for laying out activites and equipment. Scheduling strategies that effect layout including push versus pull operation, batch sizes, and dispatching rules. Group Technology cell formation methods. Material handling. Data collection for plant layout, including process flow charts. Simulation of manufacturing layouts. Fall Semester. *Lecture 3 hours with design experience.*

460 Structural Engineering Analysis and Design (3)
Analysis and design of framed structures due to moving and fixed loads; influence lines; deflections of beams and trusses. Analysis,of statically indeterminant beams, trusses, bents, and frames. Fall semester. Lecture 3 *hours. Prerequisites: 246 with grade ofC or better; Mathematics 245, 255. Corequisite: 380.*

462 Soil Mechanics, Foundations and Substructures (4)
Physical properties of soils, foundation explorations, and principles of design of dry and subaqueous foundations. Fall semester. Lecture 4 hours, laboratory experience included. Prerequisites: 246, *307,* 308 with grades *of Cor better.*

465 Structural Engineering Design (4)
Design criteria in structures. Behavior of steel structures and reinforced concrete columns and beams. AISC and AC1 codes. Design project included. Spring semester. Lecture *4 hours. Prerequisite: 445 or 446 or 460 with grade of Cor* better.

468 Elementary Structural Matrix Methods (3)
Review of matrix algebra and vectors, development of member stiffness and flexibility matrices. Design project included. Spring semester. Lecture 3 *hours. Prerequisite.\445 or 446 or 460 with grade of C or* better.

470 Microprocessors and Digital Logic (3)
Design of combinational and sequential electronic circuits. Practical microprocessor principles: structure, programming, and interfacing; Design of electronic systems treating the microprocessor as a system component. Fall semester. *Lecture 2 hours. Projects 3 hours. Prerequisites: 371, 372 with grades ofC or better, and either 377, 378, with a grade ofC or better or CPSC 250.*

471 Electrical Machinery (3)
Magnetic circuits and transformers. Rotating electrical machinery; D.CJ machines, synchronous machines, induction motors. Speed control and transient behavior. Design projects included. Fall semester. Lecture 3 *hours. Prerequisites: 371, 372, 373, 375,379 with grades of Cor better. Corequisites: 479.*

472 Electrical Energy Systems (4)
Power systems component modeling; transmission lines, machines, transformers. Load flow analysis, system dispatching and control. Fault analysis, symmetrical components, system,protection. Transient stability. Design projects included. Spring semester. Lecture *4 hours. Prerequisite: 471 with grade ofC or better.*

473 Communication Systems (3)
Definitions and basic concepts of analog and digital modulation techniques. Fourier and LaPlace transform techniques used to study transmission of signals through linear filters, time-bandwidth relationships. Amplitude, frequency, and pulse modulation techniques described and analyzed. Periodic sampling and the Nyquist sampling criterion. Fall semester. Lecture 3 *hours. Prerequisites: 322,325 withgrades of Cor better.*

474 Optical Fiber Communication (3)
Optical fiber as a transmission medium using ray theory and wave theory approaches. Characteristics and practical aspects of optical fiber communications. Measurements undertaken in the laboratory and field. Light sources and detectors with particular emphasis on system design, application, and performance. Basic principles used for optical sensors. Electro-optic devices. On demand. *Lecture 3 hours. Prerequisites: Physics 232,* Mathematics *245 and 255.*

477 Electronic Instrumentation (3)
Development of instrumentation systems to gather data and to verify performance. Characteristics of typical sensors. Signal conditioning techniques and circuits. Specification and design of systems to acquire and condition data from an array of sensors. Laboratory work and design projects included. Spring semester. *Lecture 3 hours. Prerequisites: 377, 378 withgrades ofC or better.*

478 Sampled Data and Nonlinear Control Systems (4)
Analysis and design of automatic control systems operating on discontinuous data and depending on either incremental or sampled continuous processes. Consideration of nonlinear systems analysis and design. Design project. Fall semester. *Lecture 4 hours.* Prerequisites: *373,* 379 *with grades of Cor better.*

479 Electrical Machinery Laboratory (1)
Experimental study of transformer and machine behavior. Design project included. Fall semester. Laboratory 3 *hours. Corequisite: 471* •

49It Special Topics in Engineering (1-4)
Advanced treatment of a specialized area in engineering, varying from term to term. On demand. Prerequisite: approval *of* instructor *and dean.*

493 Senior Design Experience I (3) CORE
First semester of interdisciplinary group design project. Definition of engineering problem, completion of feasibility study, and preliminary design. Oral and written presentation of progress and results. Every semester. *Prerequisites: 380 with grade of Cor better,* completion *of all lower* division engineering *courses, and senior* standing. Corequisite: 410 or 411.

494 Senior Design Experience II (4) CORE
Second semester of interdisciplinary group design project. Completion of detailed and final design phases of engineering problem initiated in 493, including a model. To be completed in sequence. Oral and written presentation of progress and results. Every semester. Prerequisites: 493 *with grade ofC or* better. Corequisites: *410 or 411.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

Computer Science

The Computer Science program provides the B.S. degree in computer science. Computer science majors take at least a 46-hour sequence of computer science courses and take additional courses in an area of concentration. The concentration of study augments the computer science courses and is a specialization in which the student can apply his or her knowledge of computers. Three concentrations are available: information systems, scientific applications, and computer engineering.

Computer Science (B.S.): Information Systems, Scientific Applications, and Computer Engineering.

Information Systems

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: English 277 or 278 (3 hours)
Oral Communication: Completion of oral communication course within major (3 hours)
Computer Literacy: Computer Science 150 (4 hours)
Cultures and Civilizations: Either Option a: Western Humanities 1 and II (6 hours) *and* Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization 1, II, HI (9 hours) *i*
Humanities and Fine Arts: Philosophy 425 and one approved fine arts course (6 hours)
Behavioral & Social Sciences: Economics 101 and 102 (6 hours)
Natural Sciences: One 2-semester laboratory science sequence chosen from: Biology 121-122, Chemistry 121/123, 122/124, Chemistry 125, 122/124, Geology 111-112 (8 hours)
Mathematics: Math 151/152 (4 hours)
Statistics: Math 307* (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Computer Science core courses: Computer Science 160,250,251, 260,301, 312, 320,335, 350,460,490r
12 hours of upper division (300 or 400-level) Computer Science electives
Mathematics 161,162, 212,303,307
Accounting 201, 202, 305
Management 311, 356

Scientific Applications

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: English 277 or 278 (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: Computer Science 150 (4 hours)
Cultures and Civilizations: Either Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, HI (9 hours)
Humanities and Fine Arts: Philosophy 425 and one approved fine arts course (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses (6 hours)
Natural Sciences: One 2-semester laboratory science sequence chosen from: Biology 121-122 or Geology 111-112, Chemistry 121-123, 122-124, or Chemistry 125,122-124, Physics 103-104, Physics 230-280,231 -281 (8 hours)
Mathematics: Math 151/152 (4 hours)
Statistics: One approved statistics course (3 hours; approved related course below may apply)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Computer Science core courses: Computer Science 160, 250, 251, 260,301,312, 320,350,460,490r
12 hours of upper division (300 or 400-level) Computer Science electives
Mathematics 161,162,212,245,255,303,308,407 and 408 (or Engineering 322) and one of the following: 412,414,418, 428,445 or 460
One additional 2-semesterlaboratory sequence chosen from: Biology 121-122 or Geology 111-112, Chemistry 121-123, 122-124 or Chemistry 125, 122-124, Physics 103-104 or Physics 230-280,231-281 (8 hours). If Biology or Geology is used to fulfill the General Education Natural Science requirement, the additional laboratory sequence must be chosen from Chemistry or Physics.

Computer Engineering

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: English 277 or 278 (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: Computer Science 150 (4 hours)
Cultures and Civilizations: Either Option a: Western Humanities 1 and II (6 hours) *and* Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, 111 (9 hours)
Humanities and Fine Arts: Philosophy 425 and one approved fine arts course (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses (6 hours)
Natural Sciences: Chemistry 121 -123, Physics 230-280 (8 hours)
Mathematics: Math 151/152 (4 hours)
Statistics: Engineering 322* (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses

Computer Science core courses: Computer Science 160,250,251,260,301,312, 320,350,460,475,490r
6 hours Computer Science/Electrical Engineering electives chosen from Computer Science 420,426,430,440,476,480; Engineering 473,474
Mathematics 161,162, 212, 245, 255, 303
Physics 231, 281,232,282
Engineering 271, 272,322, 325, 371, 372

All majors must attain a minimum grade of C in all computer science core courses as a condition for graduation.
2.0 average required in all computer science courses excluding 110 and 111

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours
* If certified as general education statistics

COMPUTER SCIENCE MINOR

23 hours in computer science including 150,160, 251, 312, 350; one 400-level computer science course; one additional 300-400 level computer science course. At least two 300-400 level courses must be taken at this institution.

Minimum 2.0 grade point average in the minor.

COMPUTER SCIENCE COURSES

110 Introduction to Computing (3)
Overview of the development of the electronic computer, its technology, capabilities, and limitations. Ethical and social issues are considered, as well as the role of computers in society. Introduction to the use of a range of useful microcomputer hardware and software. Extensive laboratory experience. *Credit not allowed in both* CPSC *102 and 110.* Every semester. Prerequisites: Placement Level *20 or Math* 106 *with a grade of* C or better.

111 Computer Information Systems II (3)
A study of the analysis, design, and implementation of business computer systems; system life cycle models; methods and techniques for systems development; advanced concepts in microcomputer application packages; introduction to a programming language such as BASIC. Every semester. Prerequisite: 110.

118 Computer Programming with FORTRAN (3)
An introduction to the concepts and techniques of computer science. Emphasis is placed on the design of efficient algorithms using the FORTRAN language. Every semester. Prerequisite: *Mathematics 135 or 145.*

150 Fundamentals of Computer Science I (4)
An introduction to computer science concepts and computer software development using a higher level language. Algorithms, flowcharting, programming, and documentation of numerical and non-numerical problems. Introduction to computer science terminology and concepts such as computer hardware and computer application areas. Lecture 3 hours *and laboratory 2 hours.* Every semester. Pre- or *corequisite: Math 145.*

160 Fundamentals of Computer Science II (4)
Continued development of programming style using abstract data structures and top-down design. Debugging and testing of large programs. Emphasis on algorithm development. List processing. Recursion. (Stacks, trees, searching and sorting.) *Lecture* 3 hours *and laboratory 2 hours.* Every semester. Prerequisite.150 with *a grade of* C *or better.*

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum *credit 4 hours.*

250 Digital Logic and Introduction to Computer Hardware (4)
Number representation and arithmetic; basic digital devices and their Boolean representations; introduction to logical circuit design and simplification using Boolean algebra and Karnaugh maps; combinational logic building blocks such as multiplexers, demultiplexers, encoders, decoders, comparators, adders, ALUs; analysis and design of sequential logic circuits; sequential logic building blocks such as storage registers, shift registers and counters . Lecture 3 hours and laboratory 2 *hours.* Every semester. Prerequisite : 150 with a grade *of* C or better.

251 Introduction to Operating Systems (3)
Basic operating system principles, job control languages and operating system internals. The hardware/software interface; file systems; resource management; command languages; segmentation, paging and virtual memory; other virtual resources. Detailed examination of two or more current operating systems, such as Windows, UNIX or Novell NOS. Prerequisite: 160 *with a grade of* C or *better.*

260 Computer System Organization and Assembly Language Programming (4)
Structure of digital computers; introduction to machine language, symbolic coding, and assembly language; register sets, instruction types, and addressing modes; assembler directives and macros; low-level input/output techniques; interrupts; memory management, segmentation, and paging; operating system introduction. *Lecture* 3 *hours and laboratory 2 hours. Prerequisite: 250 with a grade of* C or better.

301 Systems Programming (3)
Structure and design of programs whose inputs are programs. Assemblers, interpreters, compilers, loaders and supervisors. Introduction to formal programming languages, syntactic descriptions, symbolic functions and manipulations. Fall semester and Summer. Prerequisites: 260 and Math 303 *with grades of C or* better.

312 Data Structures and Algorithms (3)
A study of data structures and the algorithms used to process them. Algorithms for handling strings, stacks, lists, trees and graphs. Sorting and searching techniques. Recursive and non-recursive algorithms. Efficiency considerations. Spring and Summer semesters. Prerequisites: 160 and *Mathematics 303 with grades of* C or better.

320 Topics in Operating Systems (3)
Concepts and issues of operating system principles; procedure activation, storage allocation, system structure, performance evaluation, memory management, concurrent processes and programming, process management, security and recovery proceedures. An introduction to distributed operating systems; comunication, synchronization and system structure in distributed systems. Prerequisite: 250, 251, and Math *303 with grades of* C or better.

335 File and Data Base Processing (3)
A study of data file organizations. Creation and maintenance of sequential, direct, and indexed sequential files. File sorting and searching techniques. Data compression and data encryption. Data base concepts. Hashing techniques and address overflow. Primary and secondary key usage. Inverted and linked list files. Prerequisite: 251 with grade *of C or* better.

350 Software Engineering I (3)
A study of systems analysis and design aspects of software engineering to include information systems and the systems analyst, tools and techniques of systems analysis, and the life cycle concept of system development. Spring semester. Prerequisites: 160, English *277 or* 278; with grades *of* C or better.

385 Ethical and Social Issues in Comptuting (3)
This course examines the ethical and social issues arising from advances in computer technology and the responsibility that computer professionals and users have with regard to computer use by focusing on the intrinsic link between ethics and the law, how both try to define the validity of human actions, and on the moral and ethical dilemmas created by computer technology that challenge the traditional ethical and moral concepts. Prerequisites: HO or 150, English *277 or 278; with grades of* C or better.

410 Programming Languages (3)
The study of the structure, design, and implementation of computer programming languages, including procedural, object-oriented, logic programming, and functional languages.Topics include language syntax and semantics, procedure and data abstraction, binding times, exception processing, support for concurrency, and language programming paradigms. *Prerequisites: 251 and 312 with grade of C or better.*

420 Computer Graphics Applications and Algorithms (3)
Computer graphics systems, system software, data structures for graphics devices and display processors, representational algorithms and packaged graph' ics software. Fall semester. Prerequisite: 312 with grade *of* C or better.

426 Computer Network (3)
A theory, design, engineering, and installation of networks to connect digital computers. The course will prepare students to plan and implement a network. Also includes peer-tp-peer networks, the client-server model, network operating systems, and an introduction to wide-area networks. The network and implementation tools may vary to meet current development trends. Prerequisites: 251 and 301 with grades *of* C or better.

430 Topics in Simulation (3)
Digital simulation. A study of simulation languages and simulation techniques for solving many types of research problems from management, engineering, and science; simulation of large systems, design of simulation experiments for optimization; applications using simulation languages. On demand. Prerequisites: *3X2 with grade of* C or better and an approved *course* in *statistics.*

435 Data Base Management Systems (3)
Concepts and methods in the definition and management of data bases; physical and logical data base design; the relational model; programming in a data base environment; topics in data base security, integrity, recovery and concurrence. Fall semester. Prerequisites: 251 and 312 with grades *of* C or better.

440 Wide Area Networks (3)
The design, preparation, and delivery of information, applications, and services using client/server computing over a wide-area network. The network and implementation tools may vary to meet current development trends. *Prerequisite: 312 with a grade of* C or better.

445 Automata, Complexity, and Computability (3)
An introduction to the classical and contemporary theory of computation including automata, formal languages, Turing machines, recursive functions, computability and uncomputability, complexity, and the classes of P and NP. Spring semester. Prerequisites: 160 *with grade of* C *or better and Mathematics 303.*

450 Software **Engineering II** (3)
A study of software development including the philosophy and techniques of software engineering and emphasizing analytical techniques useful to software designers. The course will include numerous programming assignments that will emphasize the areas of the design process; top-down, bottom-up, and structured programming approaches; different levels of test thoroughness; test approaches; test models; software reliability; and management techniques. Fall semester. Prerequisites: 30i and 350 with *grades of C or better.*

460 Computer Architecture (3)
An advanced course in computer architecture. Topics include classical uniprocessor architecture, computer arithmetic, instruction sets, control systems, I/O operations, memory hierarchies, cache and virtual memory mechanisms, basic principles of multiprocessing, microprogramming, serial and pipelined arithmetic processors, and RISC architecture. Spring semester and Summer. Prerequisite: 260 *and 320 with grade of* C or better.

475 Advanced Computer Systems (3)
A study of representative computer systems including architectural features, hardware implementation, machine level programming, memory systems, 1/O device interfacing, and system design. Prerequisite: 250, 260 *and 460 with grades of* C *or better.*

476 Embedded Microcontroller Systems (3)
Microcontroller systems architecture, advanced real-time signal interfacing techniques, I/O programming concepts, real-time realization of digital signal processing and filtering techniques. Projects included. Prerequisites: *250, 260 and Engineering 325 with grades of* C or better. -

480 Introduction to Artificial Intelligence (3)
Artificial intelligence; simulation of cognitive behavior and self-organizing systems; heuristic programming including the use of list processing languages; data representation; pattern matching structures; applications in symbolic mathematics; survey of examples from representative application areas. Every semester. Prerequisite: *312 with* ***a*** *grade of C or better.*

490r Group Software Project (3)
A group design effort which will concentrate on developing a major software project. Oral and written presentations of progress and final results required. Every semester. Prerequisites: *320, 350 with grades of* C or better, *and senior standing in computer science.*

495 r **Departmental Honors (1-3 hours per term, 4 hours for the** two **terms)** On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

College of Health and Human Services

Professor G.M. Janeksela, *Dean*

The College of Health and Human Services offers seven programs leading to baccalaureate degrees. These programs are criminal justice, human services, nursing, occupational therapy, physical therapy, legal assistance studies, and social work. In addition to the undergraduate degrees, Master of Science degrees in Criminal Justice and Nursing are offered. The Master of Science in Criminal Justice includes concentrations in Correctional Psychology, Criminal Justice, System Application, or Education. The Master of Science in Nursing includes concentrations in Clinical Specialist, Education, Administration, Family Nurse Practitioner, and Nurse Anesthesia.

Each program is designed to prepare professional personnel to work in a variety of settings related to meeting human needs. The faculty and philosophy of the college emphasize the interdisciplinary relationships of the various fields of knowledge and practice. The college also houses two nonacademic units: The Center for Community Career Education, and the Tennessee Early Intervention System. The Center for Community Career Education is a non-profit career and educational counseling and training center. The Tennessee Early Intervention System coordinates services for children with special needs who are under the age of three.

School of Rehabilitation Professions

Associate *Professor* Randy Walker, Director

Occupational Therapy

Assistant Professor, Teresa Norris, *Program Coordinator*

The occupational therapy curriculum is composed of two segments, pre-occupational therapy and professional occupational therapy. The pre-occupational therapy segment consists of the 60 hours of pre-requisites which satisfy the universities general education requirements as well as courses that are allied to the major. After admission into the professional occupational therapy segment, the equivalent of an additional 5 semesters is required which includes 6 months of Level II fieldwork in a non-academic, health-care and community delivery settings.

The curriculum combines classroom and laboratory experiences with independent study and clinical experience in a variety of health care settings. Clinical facilities located throughout the community are used to provide the student with initial opportunities to relate theoretical concepts to actual occupational therapy practice (Level I fieldwork).

The occupational therapy program has been granted developing program status from the Accreditation Council of Occupational Therapy education (ACOTE), P.O. Box 31220, Bethesda, MD 20824-1220, (301) 652-2682. Using the timeline provided by ACOTE, the earliest date of accreditation is December 2000 with the first class expected to graduate in August 2001. Once accreditation of the program has been obtained, graduates will be eligible to sit for the national certification examination administered by the National Board of Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, registered (OTR). Licensure in most states is based upon the results of the NBCOT Certification examination.

Pre-Occupational Therapy

Students must meet the same admission requirements as all other applicants to the University. The prerequisites for the professional program are consistent with the general education require-

ments of the University and are herein listed under program prerequisites. All students interested in pursuing occupational therapy should seek advisement with an occupational therapy faculty member.

Occupational Therapy Courses
Enrollment in courses offered by the Occupational Therapy program is only allowed by special permission of the faculty and program coordinator.

Admission to the Professional Occupational Therapy Program
Admission to the University does not assure acceptance into the Occupational Therapy program. The number of qualified applicants characteristically exceeds the number of students that can be admitted. Selection by the admissions committee is based upon a number of factors, as follows:

- Overall grade point average (min. 3.0 on 4-0 scale)
- Natural science grade point average (min. of 3.0 on 4-0 scale)
- Demonstrated ability to handle a full academic load
- General knowledge of occupational therapy
- Demonstrated interpersonal abilities
- Extracurricular and leadership activities
- Maturity

Residents of the state of Tennessee are given preference for admission, followed by non-Tennessee residents from the immediate geographical area.

Application forms will be available October 1 of the year preceding anticipated admission into the program. The completed application packet, including transcripts from all previously attended institutions of higher education and recommendation forms, must be submitted to the departmental office by 5:00 p.m... February 1. It is the applicant's responsibility to ensure that the packet of information is complete. The decision of the admissions committee will be mailed to each applicant.

Prerequisite Courses
Sixty semester hours of course work must be completed prior to initiating study within the professional program. A minimum of 45 hours of the prerequisites must be completed by the end of the fall semester before the February 1 deadline for receiving applications. The 45 hours of prerequisites must include the following: one biology course, one chemistry course, one physics course, two psychology courses, one sociology course, one math course, and one English composition course.

The courses listed are offered at UTC. Transfer students should incorporate comparable courses into their college work. Refer to the specific course descriptions for more definitive information

General **Education**		**Allied to Major**	
English 121	3	Chemistry 121	4
English 122	3	Physics 103	4
Humanities & Fine Arts	9	Psychology 201	3
Biology Dl 21	4	Psychology 308	3
Math F120	3	Theatre/Speech 109	3
Psychology C101	3	Computer Sci 110	3
Sociology C220	3	Biology 208/209	4
Human Srvs G300	3	Elective	3
EHLS021	1		
EHLS 022	**1**		
Total	**33**	Total	**27**

Expenses and Transportation
Each student is required to purchase professional liability insurance annually. Additional expenses include laboratory/clinical attire.

Classes are required during the summer semester of both the junior and senior years of college. Occupational therapy clinical experiences are scheduled throughout the academic year. Students must provide their own transportation to the clinical sites. Two full-time 12-week clinical experiences are scheduled during the summer and fall semesters following the formal didactic course work. During these clinical experiences, students must be financially prepared for travel to and living expenses in other cities throughout the United States.

Continuation and Graduation Standards
In view of the nature of occupational therapy and the fact that the quality of human life may be adversely affected by individuals incompetently providing occupational therapy, the following standards will be applied by the occupational therapy faculty.

1. To progress in occupatonal therapy, students are required to earn a minimum grade of C in all occupational therapy required courses, maintain an active liability insurance policy for clinical courses; and maintain current CPR certification.

   Students who fail (any grade less than C) any portion of a field work clinical experience may repeat the failed course(s) one time. Additional failure in any portion of a clinical field work experience will result in dismissal from the occupational therapy program.

   If in the judgement of the faculty there is reason to question the emotional or physical condition of a student or the safety or quality of occupational therapy care provided, the faculty has the right and obligation to exclude the student from the clinical area.
4. Students who fail non-clinical courses may be denied progression in the program. Students may repeat failed non-clinical courses only with the approval of the retention and progression committee and the coordinator of the occupational therapy program.
5. Students must complete all Level II fieldwork within 24 months following academic preparation.

Occupational Therapy (B.S.O.T.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization 1, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: Math 123 (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

9 hours behavioral or social sciences including Psychology 101, Psychology 308, and Sociology 220.
19 hours mathematics, natural or applied science courses including Biology 121, 208,209; Chemistry 121; Physics 103; and Mathmatics 123.
Occupational Therapy 301,308,310,312,314,316,320,322,324,330,331,332, **340,350,360,380,410,412,420,422,424,450,462,490,491,493**

Minimum grade of C In all occupational therapy required courses
Minimum of 30 hours of 300 and 400 level courses
2.0 average overall, 2.0 UTC average, and 2.0 average in occupational therapy courses
Total hours: To exceed 128 hours, usually a minimum of 151 hours.

OCCUPATIONAL THERAPY COURSES

Enrollment in courses offered by the Occupational Therapy Program is only allowed by special permission of the faculty and department head.
"These courses will be cross listed as Physical Therapy courses.

301 Fundamentals of Occupational Therapy (3)
This course examines fundamental baselines of occupational therapy practice; professional history, personnel and their respective roles, the use of purposeful activity as a basis for practice, medical terminology and documentation and teaching strategies as they relate to practice. (2 hours lecture & 2 hours laboratory)

308 Clinical Psychiatry for Occupational Therapy (3)
Review of major psychiatric disorders including clinical description, etiology, medical management, and treatment. Clinical team approach and legal issues of **psychiatry are presented.**

***310 Gross Anatomy (6)**
This course details the study of the structure and function of the extremities, the head, neck and trunk. The study of embryology and histology of the organ systems are included. (3 lecture and 6 laboratory hours)

312 Medical Care I (3)
Study of pathology and medical management of selected topics from field of general medicine and surgery.

314 Medical Care 11 (3)
A study of selected disease processes and conditions in all age groups and a survey of the medical and/or surgical management of these conditions. Recognition of systemic disease which may mimic neuromuscular problems as emphasized with particular emphases on differential diagnoses.

***316 Anatomy and Physiology of the Nervous System (5)**
Details structure and function of the central nervous system, correlation of the anatomical lesion, and the resultant clinical signs and symptoms. (3 lecture and 4 laboratory hours)

320 Modalities I (2)
A laboratory course that provides occupational therapy students with supervised learning experiences in the therapeutic use of selected crafts and other media, using arts and crafts and related media as viable therapeutic modalities appropriate for **clinical intervention by occupational therapists, (one hour lecture and two hours laboratory).**

322 Modalities II (2)
This discussion/laboratory course provides the occupational therapy student with supervised learning experiences in the occupational performance areas of Independent Living/Daily Living Skills, Work and Leisure Skills, (one hour lecture and two hours laboratory).

324 Concepts of Occupation and Human Development (3)
A course which investigates the dynamic interrelationships among .the biological, sociological, sensorimotor, psychosocial, and cognitive aspects of human development and their impact upon occupational behavior and performance applicable from infancy through adulthood.

330 Occupational Therapy Field Work Level 1 (2)
Experience in related hospitals and clinics to acquaint students with the current practice of occupational therapy in clinical settings. Prerequisite: C or better in OCTH 301 Fundamentals of OT and completion of first year of professional program. (80 clinical hours).

331 Occupational Therapy Field Work Level II (1)
Experience in related hospitals and clinics to acquaint students with the current practice of occupational therapy in clinical settings. Prerequisite: C or better **in OCTH 301 Fundamentals** of OT and completion of OCTH 330. (40 clinical hours).

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332 Field Work II Practicum Seminar (1)
Provides the opportunity for discussion and guided investigation **of clinical experiences,** observations, comparison of theory and practice, feelings, and current events **related to OT practice.**

340 Group Process (1)
This course consists **of the** students developing individual and group interaction **skills, communication** processes, values clarification techniques and leadership skills, (two hour seminar).

***350 Musculoskeletal** Assessment (2)
In this course **the** student will learn the essential steps in the evaluation of function in a **patient with** musculoskeletal dysfunction. Evaluation skills for the measurement of joint motion, muscle strength, and posture are demonstrated and practiced. **(1 lecture, 2** laboratory hours).

•360 Psychosocial Reaction to Disability (2)
This course includes the study of basic concepts and principles essential to the understanding of therapist/patient/family interactions to disabilities. Concepts of behavior management, death and dying, life style adaptations, and attitudes toward disability **will** be presented with respect to their influence on physical, psycho-social, and cultural aspects of an individual's quality of life. The course **content will** also include discussion of the roles of service professions and agencies and self-help groups in facilitating adjustment to disability.

***380 Scientific Inquiry (2)**
This course teaches the importance of the scientific method in occupational therapy. (A scientific approach is needed both to understand disease processes and to evaluate the efficacy of different methods of treatment.) The student should be able to examine the evidence for accepted methods of treatment, and to evaluate **published research** studies, **with** reference to hypothesis, methodology, conclusions and relevance to occupational therapy practice.

410 Physical Dysfunction Theory and Practice I (4)
First sequence of courses examining **OT** process related to physical dysfunction in the pediatric population; this course also includes principles of kinesiology. 3 *hours lecture and 2 hours* laboratory-

412 Physical Dysfunction Theory and Practice 11 (4)
Second course **in** sequence continuing from pediatrics to the adolescent and adult population related to the physical dysfunction, as well as kinesiology principles. 3 hours lecture and 2 hours laboratory.

420 Psychological Theory and Practice I (4)
This is the first of a two-sequence course dealing with psychiatric conditions, their medical treatment and occupational therapy. 3 *hours lecture and 2 hours laboratory.*

422 Psychological Theory and Practice II (4)
This second **course in the** sequence includes information and practical skills on various frames **of** reference of psychiatric occupational therapy related to adolescent, **adult and** geriatric populations. 3 *hours lecture and 2 hours laboratory.*

424 Modalities III (2)
Lecture and laboratory course **that** provides supervised learning experiences in the **construction of splints.** ***1 hour*** *lecture and two hours laboratory.*

450 Occupational Therapy in the Community (3)
This course will enable the student to become acquainted with current trends **in health care delivery;** introduction to community services; interrelationships **of health care team members;** actual and potential occupational therapy roles **in** the **community. Observation and** participation **in** community programs, applying **occupational therapy intervention** techniques. (30 clinical hours & 2 seminar hours).

*462 Occupational Therapy Management (3)
This course will examine the financial restrictions and cost containment in health care, efficient and effective use of available time, personnel, equipment and financial resources. This course also provides a comparison and analysis of policies and procedures from various health care settings, departmental planning, and quality assurance activities.

490 Occupational Therapy Field Work Level III (12)
This is the first of a two-course sequence. Supervised practical experience in approved clinical setting for 12 weeks. *Prerequisite: Completion of all academic courses.* (450-480 clinical hours).

491 Occupational Therapy Field Work Level IV (12)
This is the second of a two course sequence. Supervised practical experience in approved clinical setting for 12 weeks. Prerequisite: Completion *of all academic courses and* OCTH 490. (450-480 clinical hours).

*493 Senior Seminar (1)
Occupational therapy concepts and skills gained throughout the curriculum will be integrated in a formal presentation of a patient case study. Emphasis will be placed on evaluating the occupational therapy plan of care in the context of the total patient as he or she exists in society. Treatment alternatives selected will be validated through the use of professional literature. The oral defense of each case study will include interactions between student, faculty, and clinical instructors.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand

Physical Therapy

Associate Professor J. Randy Walker, Jr., *Director*

Master of Physical Therapy

The six-year program offers a curriculum leading to a Master of Physical Therapy (MPT) degree. Three years of prerequisites are required prior to admission into the three-year professional program. Students who have been admitted into the program are enrolled in the fall semester of their senior year and must be enrolled on a full-time basis for each of the eight semesters of the program. The curriculum combines classroom and laboratory experiences with independent study and clinical experiences in a variety of health care settings.

Admission to the Professional Physical Therapy Program
Admission to the University does not assure acceptance into the physical therapy program. Enrollment is limited, and the number of qualified applicants exceeds the number of students who can be admitted. Selections by the admissions committee is based upon a number of factors evaluated from appropriate information: overall grade point average, science grade point average, the ability to handle a full academic load, general knowledge of physical therapy, demonstrated interpersonal abilities, extracurricular and leadership activities, and maturity. The applicants with the best combination of these factors will be selected for the class. Students may apply who have a minimum overall and science grade point average of 3.0 on a 4-0 grading scale. Residents of the state of Tennessee are given preference for admission, followed by non-Tennessee residents from the immediate geographical region.

Application forms will be available October 1 of the year preceding anticipated admission into the program. All inquires and requests for application materials should be directed to the physical therapy program. The completed application packet, including transcripts from all previous attended institutions of higher education and recommendation forms, must be submitted to the program office by 5:00 p.m. on February 1. It is the applicant's responsibility to assure that the packet of information is complete. Early submission of the application packet is encouraged. The decision of the admissions committee will be mailed to each applicant. Undergraduate students who are admitted into the program will be required to apply to and be admitted into the Division of Graduate Studies at the completion of the first year of the physical therapy program. Upon the successful completion of the first year of the professional program undergraduate students will be granted a bachelor's degree in Rehabilitation Science. Applicants who have already earned a bachelor's degree from a regionally-accredited institution may apply to the division of Graduate Studies prior to the first year of the professional program.

Prerequisite Courses
Undergraduates must complete ninety-six semester hours of course work prior to initiating study within the professional program. A minimum of 80 semester hours of the prerequisites must be completed by the end of fall semester before the February 1 deadline for receiving applications. The 80 hours of prerequisites must include two courses in English composition and biology, one course in chemistry, one course in physics, one course in mathematics, one course in psychology and an additional course in any two of the following: chemistry, physics and psychology. A tptal of 26 semester hours of electives are included in the prerequisites. Students are encouraged to select elective course work which could be applicable to an alternative bachelor's degree in the event that they are not admitted into the program. Applicants whoiiave already earned a bachelor's degree are required to complete only major-related prerequisites as indicated below by asterisks.

The courses listed are offered at UTC. Undergraduate transfer students should enroll in comparable courses and complete the last 30 consecutive semester hours prior to entering the program at an accredited four-year institution. Refer to the specific course descriptions.

General Education		**Allied to Major**	
English 121	**3**	•Biology 121	**4**
English 122	**3**	•Biology 208/209	**4**
Humanities &. Fine Arts	**9**	•Math 210 or Psychology 201	**3**
•Chemistry 121/123	4	Chemistry 168 or 1224	
*Math 145	**3**	•Physics 103/183	**4**
•Psychology 101	**3**	•Physics 104	**4**
•Psychology 241	**3**	Electives	23
Perspectives	**3**	•Biology 191	**4**
EHLS021	**1**	•EHLS 317/316	**4**
EHLS 022	**1**	•EHLS 154	**3**
•Philosophy 425	**3**	•Classics 300	**3**
Total	**36**	**Total**	**60**

Expenses and Transportation
Each student admitted to the program is required to purchase professional liability insurance annually. Additional expenses include laboratory/clinical attire and dissection instruments. Classes are

required during the summer semester of both the first and second years of the program. Physical therapy clinical experiences which are scheduled throughout the academic year require students to provide their own transportation to the clinical sites. Full time clinical experiences are scheduled during the summer semesters of both the second and third years. Students must be financially prepared for travel to and living expenses in other cities throughout the United States.

Continuation and Graduation Standards

In view of the nature of physical therapy and the fact that the quality of human life may be adversely affected by individuals providing physical therapy, the following standards will be applied by the Physical Therapy faculty.

1. To progress in physical therapy, students are required to:
   a) maintain a 2.0 grade point average for all courses taken at the undergraduate level; students must maintain a 3.0 for all courses taken at the graduate level.
   b) maintain an active liability insurance policy for clinical courses;
   c) maintain current CPR certification.
2. If in the judgement of the faculty there is reason to question the emotional or physical condition of a student or the safety or quality of physical therapy care provided, the faculty has the right and obligation to exclude the student from the clinical area.
3. Students who fail courses may be denied progression in the program. Students may repeat failed courses only at the discretion of the retention and progression committee or the coordinator of the program of physical therapy.

Physical Therapy (M.S.P.T.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, other than Music 111, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

6 hours behavioral or social sciences including Psychology 101 and Psychology 241
EHLS 154,316,317; Philisophy 425; Classics 300
30 hours mathematics, natural or applied science courses including Biology 121, 191,208,209; Chemistry 121,122 or 168; Mathematics 145,210; Physics 103, 104
Physical Therapy 401,402,410,411,414,416,420,421,440,450,453,511,512, 514,516,518,520,522,524,526,528,530,532,534,536,538,540,542,544, 548, 550, 595r, 597r.

Minimum grade of C in all physical therapy required courses (exclusive of electives)
Minimum of 30 hours of 300 and 400 level courses
3.0 average overall, 3.0 UTC average, and 3.0 average in physical therapy courses
Total hours: A minimum of 128 hours for bachelor's degree at UTC.

PHYSICAL THERAPY COURSES

Enrollment in courses offered by the program of Physical Therapy is allowed by special permission of the faculty and the director.

401 Physical Therapy Skills (2)
To provide the student with basic patient care skills. Topics to be included are critical observation, universal precautions, medical chart review, methods of measuring and recording vital signs, basic wheelchair features, basic crutch gaits and transfer techniques, and emergency care. Fall semester. *Lecture 1 hour, laboratory 2 hours.*

402/501r Seminar 1(1)
Study of selected topics through a seminar taught by appropriate faculty members. Topics will be announced in advance each semester. Repeated and required each fall and spring semester for the length of the program.

410 Gross Anatomy (6)
This course is a combined lecture-laboratory program designed to present to the student an understanding of basic and clinical, human gross anatomy. Detailed regional analysis of the buttock, lower extremity, and upper extremity will be performed. Structure and function of the head, neck, and trunk regions will be studied. Major joints will be discussed. Anatomy of the thoracic and abdominal cavities will be introduced. Fall semester. *Lecture* 3 *hours, laboratory* 6 *hours.*

411 Therapeutic Exercise (3)
This course will provide the student with a basic foundation of the knowledge and skills needed to prescribe and apply therapeutic exercise in the practice of physical therapy. Normal physiology and exercise physiology as it relates to the topics presented will be reviewed. The focus of this course will be on how to perform basic exercises used in physical therapy, as well as the rationale of why and when they are applied. This course will provide the foundation for therapeutic exercise units within the applied courses (orthopaedics, neurology, acute care) of the curriculum. Fall semester. *Lecture 2 hours and lab 2 hours.*

414 Kinesiology (3)
An introduction to kinesiology through the study of biomechanics, including statics and dynamics, joint kinematics, and related aspects of muscle mechanics and physiology. Emphasis is on the importance of mechanical principles in relation to analysis of the human body at rest and in motion, both in normal and selected pathological conditions. *Lecture 2 hours, laboratory 2 hours.*

416 Physical Agents I (2)
This course will provide the student with the didactic and clinical applications of selected physical agents used in physical therapy practice. The following physical agents will be covered: superficial heating and cooling agents including hydrotherapy, deep heating modalities, infrared, and ultraviolet. Spring semester. *Lecture I hour and lab 2 hours. Prerequisite* PHYT *401.*

420 Education and Communication (2)
Major consideration given to planning and implementing the educational aspects of learning. An additional purpose of this course is to help the student learn to establish effective interpersonal relations and communication skills. Emphasis will be placed on assertiveness, learning, and active listening behaviors. Fall semester. *Lecture 2 hours.*

421 Musculoskeletal Assessment (2)
The student will learn the essential steps in the evaluation of function in a patient with musculoskeletal dysfunction. Evaluation skills for the measurement of joint motion, muscle strength, and posture are demonstrated and practiced. Fall semester. *Lecture 1 hour, laboratory 2 hours.*

431 Clinical Education IV (2)
This course will follow successful completion of all didactic work of the fifth semester of the physical therapy program. The student will work under the direct supervision of a physical therapist to evaluate signs and symptoms, interpret findings, determine goals and establish and perform therapeutic interventions of patient/clients of all age groups with neurological dysfunction. 80 clinical hours. Prerequisites: *330, 331,430. Graded Satisfactory/No credit.*

440 Pathophysiology of the Musculoskeletal System 1(1)
With the aid of case studies, audiovisual support and handouts, this course will survey the clinical correlations of signs and symptoms of dysfunction of the musculoskeletal system, **with** emphasis on the extremities. The fundamental concepts of histology and disease-producing mechanisms and pathologic processes, emphasizing cellular, tissue, and organ changes in disease will be presented.

450 **Evaluation** & **Treatment** of **Patients with** Musculoskeletal Dysfunction I (4)
Provides the student with the didactic and clinical applications of evaluative measures, therapeutic interventions, and treatment rationale for select musculoskeletal dysfunctions, with emphasis on the extremities. Lecture 2 hours and lab 4 hours.

453 **Human Growth and Development (3)**
Investigate the human life cycle from the early embryo to old age. Emphasis will be placed on motor control and learning theory, the study of the principles, processes and phases of physical growth and development, as well as the strengths and limitations imposed on the individual with advancing age. Students will be exposed to preventative "wellness" intervention for both the pediatric and geriatric populations.

490r **Clinical Education V (6)**
This clinical experience will follow successful completion of all didactic work of the curriculum. The student will work under the direct supervision of a physical therapist to apply principles and skills of all course work. The student will evaluate signs and symptoms, interpret findings, determine goals and establish and perform appropriate therapeutic interventions for all age groups. (Students must complete two terms of PHYT 490. Each term consists of 240 clinical hours/6 credit hours for a combined total of 480 clinical hours, 12 credit hours) full time during the summer. Prerequisites: 330, 331, 430, 431.

493 Senior Seminar (1)
Physical therapy concepts and skills gained throughout the curriculum will be integrated in a formal presentation of a patient case study. Emphasis will be placed on evaluating the physical therapy plan of care in the context of the total patient as he or she exists in society. Treatment alternatives selected will be validated through the use of professional literature. The oral defense of each case study will include interactions between student, faculty, and clinical instructors.

495**r Departmental Honors (1-4 hours per term, 4 hours for the two terms)**
On demand. See "Departmental Honors," page 36.

497 Independent Study (1-3)
Opportunity to investigate some aspect of physical therapy or health care in greater depth than offered in other courses. This experience which is required of all senior physical therapy students, unless accepted into departmental honors, will be designed by the student with guidance from the appropriate faculty.

511 Therapeutic Exercise II (2)
This course provides the student with the didactic and clinical applications for pathology, evaluative measures, therapeutic interventions, and treatment rationale for disorders of the following systems: cardiac, vascular, pulmonary, renal, and metabolic (diabetes). Fall semester. Lecture one hour, laboratory two hours. Prerequisite: PHYT 41**1**

512 Evaluation & **Treatment of Patients with Musculoskeletal Dysfunction II (4)**
Provides the student with the didactic and clinical applications of evaluative measures, therapeutic interventions, and treatment rationale for select musculoskeletal dysfunctions, with emphasis on the neck and trunk. Lecture 2 hours, laboratory 4 hours.

514 Clinical Education I (7)
This clinical experience will follow successful completion of all didactic work of the first year. The student will work under the direct supervision of a physical therapist to apply principles and skills of first, second, and third semester coursework. The student will evaluate signs and symptoms, interpret findings, determine goals and establish and perform appropriate therapeutic interventions. This course will focus on all age groups of patients with musculoskeletal dysfunction. Summer semester. 280 clinical hours. Graded satisfactory/no credit.

516 Anatomy **and Physiology** of the Nervous System (5)
Details structure and function of the central nervous system, correlation of the anatomical lesion, and the resultant clinical signs and symptoms. *Lecture 3 hours,* laboratory 4 *hours.*

518 Physical Agents II (2)
This course will provide the student with the didactic and clinical applications of electrotherapy. *Lecture I hour and lab 2 hours.*

520 **Psychosocial Reaction to Disability (2)**
Includes the study of basic concepts and principles essential to the understanding of therapist/patient/family reactions to disabling disorders. Concepts of behavior management, death and dying, life style adaptations, and attitudes toward disability will be presented with respect to their influence on physical, psycho-social, and cultural aspects of an individual's quality of life. The course content will also include discussion of the roles of service professions and agencies and self-help groups in facilitating adjustment to disability.

522 **Physical Therapy Management** (3)
Examination of the financial restrictions and cost containment in health care, efficient and effective use of available time, personnel, and equipment and financial resources. This course also provides a comparison and analysis of policies and procedures from various health care settings, departmental planning, and quality assurance activities.

524 Scientific Inquiry (2)
Teaches the importance of the scientific method in physical therapy. (A scientific approach is needed both to understand disease processes and to evaluate the efficacy of different methods of treatment.) The student should be able to examine the evidence for accepted methods of treatment, and to evaluate published research studies, with reference to hypothesis, methodology, conclusions and relevance to physical therapy practice. Prerequisite: Math *210 or PSY 201.*

526 Medical/Surgical Conditions I (3)
This course provides the student with the didactic and clinical applications of pathology, evaluative measures, therapeutic interventions, and treatment rationale for the following conditions: immune system disorders, rheumatic disease, cancer lymphedema, renal disorders and chronic pain management. ICU treatment is discussed. *Lecture 2 hours and lab 2 hours.* Corerequisites: 456.

528 Gait Analysis (2)
The student will study normal and pathological human gait, and will be able to make objective measurements of the general gait parameters, identify abnormal gait patterns, and describe the options available for treating patients with different gait disorders. Fall semester. Lecture 1 hour, laboratory 2 hours.

530 **Scientific Inquiry II (1)**
The student will develop a detailed research proposal, which will be reviewed by faculty and an Institutional Review Board, and will then be carried out by the student in PHYT 550; Research Project. Spring Semester. Laboratory 2 hours.

532 Clinical Education II (6)
This clinical experience will follow successful completion of all didactic work of the spring semester of the second year. The student will work under the direct supervision of a physical therapist to apply principles and skills of the first five semesters of coursework. The student will evaluate signs and symptoms, interpret findings, determine goals and establish and perform appropriate therapeutic interventions. This course will focus on all age groups of patients with medical/surgical conditions. Summer semester. 240 clinical hours. Graded satisfactory/no credit. Prerequisite: PHYT 514.

534 Clinical Education III (8)
This clinical experience will follow successful completion of all didactic work of the fall semester of the third year. The student will work under the direct supervision of a physical therapist to apply principles and skills of all coursework of the fitst seven semesters of the curriculum. This course will focus on patients with neurologic dysfunctions. The student will evaluate signs and symptoms, interpret findings, determine goals, and establish and perform appropriate therapeutic interventions for all age groups. Fall semester. 320 clinical hours. Graded satisfactory/no credit. Prerequisite: PHYT *532.*

536 Clinical Education IV (8)
This clinical experience will follow successful completion of all didactic work. The student will work under the direct supervision of a physical therapist to apply principles and skills of all coursework. This course will focus on a particular patient population selected by the student in consultation with the faculty. The student will evaluate signs and symptoms, interpret findings, determine goals, and establish and perform appropriate therapeutic interventions. Spring semester. 280 clinical hours. Graded satisfactory/no credit. *Prerequisite:* PHYT *534.*

538 Evaluation and Treatment of Patients with Neurological Dysfunction 1 (3)
This course provides the student with the pathophysiology, didactic and clinical applications of evaluative measures, therapeutic interventions, and treatment rationale for neurological conditions related to spinal cord injury and peripheral neuropathies. Fall semester. *Lecture 2 hours and lab 2 hours. Corerequisites: 454-*

540 Differential Diagnosis in Physical Therapy (1)
This course is designed to provide physical therapy students with the screening tools necessary to recognize reported and unreported symptoms or medical conditions that warrant referral to other appropriate health care practitioners. Fall semester.

542 Evaluation and Treatment of Patients with Neurological Dysfunction II (6)
This course provides the student with the pathophysiology, didactic and clinical applications of evaluative measures, therapeutic interventions, and treatment rationale for neurological conditions related to cerebral vascular accident, head injury, cerebellar disorders, demyelinating diseases, neuro-genetic disease, dementia and pediatric conditions. Fall semester. *Lecture 2 hours and lab 2 hours. Corequisite:* PHYT 444.

544 Evaluation and Treatment of Patients with Neurological Dysfunction III (3)
This course provides an introduction to the basic principles of evaluation and treatment of infants, children, and adolescents with central nervous dysfunction. Content includes a review of pathophysiology, evaluation techniques, and intervention rationale for common pediatric disorders such as cerebral policy, sensory-motor impairments, pervasive developmental delay, genetic disorders, and neuromotor complications of prematurity and environmental risk exposure. Lecture one hour, laboratory 4 hours. Prerequisites: PHYT453, 5/6, 528, *538.*

548 Medical/Surgical Conditions II (5)
This course provides the student with the didactic and clinical applications of pathology, evaluative measures, therapeutic interventions, and treatment rationale for the following conditions: cardiac, Vascular, pulmonary, integumentary, endocrine, genetic, and metabolic disorders. *Lecture 2 hours and lab 2 hours. Corerequisites: 446.*

550 Research Project (3)
Students will work in small groups to complete the research project iniated in PHYT 530. Students will be responsible for data collection, statistical analysis, and production of the final results in the forms of a research manuscript. An oral presentation is required. *Prerequisites: PHYT 524, 530.*

School of Social and Community Services

Dr. Helen M. Eigenberg, *Director*

The School of Social and Community Services consists of applied fields of study which share a mukidisciplinary perspective towards the development of qualified professionals for careers in social and community service programs. The school provides undergraduate and graduate students with the knowledge and skills necessary to become effective providers and administrators of community service. The school, consisting of the programs of criminal justice, human services and management, legal assistant studies and social work, serves as the focal point for the extension of the university into the non-profit and public sector. The Human Services Management program has three concentrations: emergency systems management, nonprofit management and allied health management. Faculty of the school pursue an interactive relationship with surrounding metropolitan and rural agencies while delineate ing and using this natural laboratory for intellectual, practical, and empirical growth of students and themselves.

Criminal Justice

Dr. Roger Thompson, *Coordinator*

The Criminal Justice program promotes an understanding of the justice systems on the undergraduate and graduate levels to both majors and nonmajors. Emphasis is placed on intellectual, experiential, and problem solving activities. Students acquire conceptual knowledge and learn basic skills, i.e., interpersonal, computer, legal research, for entry level employment in criminal justice systems and social service agencies. At the graduate level, students engage in rigorous study in preparation for managerial and leadership roles throughout the justice system.

Criminal Justice (B.S.)

Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours).
Intensive Writing: one approved course in intensive writing (3 hours)
Oral Communication: one approved course in oral communication (3 hours)
Computer Literacy: Completion of computer literacy requirements within the major (3 hours)
Cultures and Civilizations: Option a Western Humanities 1 and II (6 hours) and NonWestern Cultures and Civilizations I, II and III (9 hours).
Humanities and Fine Arts: two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: SOC151 and another approved behavioral or social science course. The second social science course may not be in sociology and must be taken outside the major. (6 hours)
Natural Sciences: two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: one approved mathematics course (3 hours)
Statistics: one approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and related courses
3$ hours including: CJP 1010 and 1070; CRMJ 301, 303 or 317 or 425,310, 311, 312,325,375,410,465, and 485
15 hours criminal justice electives

Psychology 101 and Sociology 151 (These courses may also be used to satisfy general education requirements.)
A minimum of C in all courses required and a 2.0 overall GPA in the major required.
No more than 3 hours of CRMJ 470 or 471 may be applied toward the 15 hours of CRMJ electives.
Electives to Minimum of 30 hours of 300-400 levels courses
Electives to complete 128 hours.

'CJP-Cleveland State criminal justice consortium courses. See UTC Criminal Justice Faculty for advisement.
'Electives may be taken from any academic program.

CRIMINAL JUSTICE MINOR

18 hours including CRMJ 200,325,410, and 9 hours of criminal justice electives at the 300/400 level (excluding 470/471,485,495,497,498) *A*
Minimum 2.0 average in the minor.

CRIMINAL JUSTICE COURSES

190r Institute in Criminal or Juvenile Justice (1-4)
Current topics in criminal and juvenile justice. Special programs, workshops, demonstration, and in-service courses. On demand.

199r Special Projects (1-4)
Individual or group projects. On demand. Maximum credit 4 *hours.*

200 The Criminal and Society (3)
Historical and contemporary perspectives on the interaction between the criminal and society. Focus on the citizen's role as crime preventor, victim, and supporter of criminal activities. Every semester.

201 Violence in America (3)
An historical investigation into violence in America and die evolutionary response of criminal justice agencies. Every semester.

275 Drugs: The Law and the Community (3)
Study of the drug problem, related law, and treatment of alternatives. On demand.

295 Violence Against Women (3)
Examines a variety of forms of violence against women in the United States including domestic violence, sexual assault, sexual harassment and pornography. Explores how violence against women has been minimized in society and how the criminal justice system has rarely developed effective ways to address these types of crimes.

300 Psychology of Law Enforcement (3)
Psychology as applied to processes of communication among police and those individuals and groups with which they come in contact. Spring Semester.

301 Information Systems in Criminal and Juvenile Justice (3)
An introduction to information management tools and processes of accountability as they relate to the two systems of justice. Fall semester.

303 Comparative Criminal and Juvenile Justice Systems (3)
An examination of these two systems of justice as they function in other countries. Every semester.

310 Law Enforcement in Criminal and Juvenile Justice (3)
An examination of specific law enforcement problems as they relate to criminal justice and juvenile justice. Every semester. *Prerequisite:* CJP 1010.

311 Criminal Justice Research Methodology (3)
Examination of the contemporary philosophy and techniques of research as applied in the criminal justice field. Formerly CRMJ 411 Every semester. Pre or Corequisite: A statistics *course* , Prerequisite: CJP 1010.

312 Correctional Perspectives in Criminal and Juvenile Justice (3)
The development of priorities, goals, and standards for the correctional field. Fall semester. Prerequisite: CJP 010.

313 The Volunteer in Criminal and Juvenile Justice (3)
An examination of the role of the citizen volunteer in the two systems of justice. On demand.

314 Correctional Casework (3)
The application of counseling and interviewing techniques and theory to the correctional client. Spring semester

315 Prisoner's Rights (3)
Examination of the regulation of individual and collective behavior and the rationale for such restrictions during a period of confinement in a penal or mental institution. On demand.

316 Blacks and Criminal Justice (3)
Discussion of the black offender and the black criminal justice professional from the black perspective. On demand.

317 Minorities and Criminal Justice (3)
This course involves a critical analysis of multicultural, intergroup relations in the United States. It is intended to help students gain increased understanding of how race»ethnicity, gender, social status, age, occupation, etc., are related to the myriad of problems confronting social relations and the workings of the criminal j ustices system. On demand.

320 Advanced Administration in Criminal and Juvenile Justice (3)
Theory and practice of the administration of criminal justice system components. Every semester. Prerequisite: CJP* 1050 (or 105) or approval of instructor.

325 Law and Justice System (3)
An examination of criminal and civil law to emphasize the full range of the legal system and its application to everyday life. Every semester.

330 Probation and Parole (3)
An examination of the theory and practice of probation and parole with juvenile and adult offenders. Fall semester.

350 Juvenile Institutional Services (3)
An historical perspective of the evolution of juvenile institutions and their present day applicability and use. Spring semester.

360 Correctional Institution (3)
Examination of the history, development and current status of institutional corrections in the juvenile and adult criminal justice systems of the United States, including detention center, training schools, jails and prisons. On demand.

375 Juvenile Justice (3)
A study of historical, philosophical, and legal influences defining the juvenile justice system. Students will examine the structure of the juvenile court, choices for intervention, methods for measuring crime, and special topics associated with juvenile justice. Prerequisite CJP 1010.

400 Constitutional Law (3)
An examination of the leading constitutional principles pertaining to modern criminal procedure. Fall semester.

402 Organized Crime (3)
The effect of organized crime on the community, the government, legal systems, and the individual; and methods of combating organized crime. On demand.

405 Advanced Criminal Law (3)
Common and statutory law of crimes including national developments and trends, inchoate offenses, and defenses to crime. Fall semester. Prerequisite: CJP 1070 or approval *of instructor.*

406 Advanced Juvenile Law (3)
Statutory and case analysis of judicial decisions, substantive juvenile law and procedures significant to practices of various agencies in juvenile justice. Spring semester. Prerequisite: CJP 1070 *or approval of instructor.*

408 Advanced Criminal Procedure (3)
Examination of the major legal and constitutional protections of the accused from initiation of investigation through post-conviction relief. Spring semester. Prerequisite: CJP 1070 or approval *of* instructor.

410 Theories of Criminal and Delinquent Behavior (3)
An analysis of theory and research on epidemiology and etiology of crime. Every semester.

420 Administrative Advocacy (3)
Examination of a case for presentation to an administrative law court; review of record, legal research, preparation of a brief, and presentation of oral argument. On demand. Prerequisite: 301.

425 Gender, Crime and Criminal Justice (3)
This course is intended to provide an overview of women's involvement in the criminal justice system, as offenders, victims and professionals. Considerable attention will be given to women as victims of crime, the social system and the criminal justice process. On demand.

430 Philosophical and Ethical Issues in Criminal Justice (3)
An investigation into the implications for criminal justice theory and practice of selected philosophical positions and perspectives. On demand. Prerequisite: at least *one course at* the 200 level or *above in either philosophy or religion, or approval of instructor.*

460 Dispute Resolution (3)
Alternatives to the courts for conflict resolution, including negotiation, mediation and arbitration. Discussion of legal issues, advantages and limitations of the alternatives. Laboratory exercises in applying these methods. On demand. *Prerequisite:* Completion *of Category C.*

465 Crisis Intervention (3)
Study of the theoretical bases for accurately assessing crisis situations and a guided practicum in techniques of crisis intervention. Every semester.

470,471 Internship in Criminal or Juvenile Justice (3,6)
Supervised internship in a criminal justice agency. Admission to 470 or 471 requires written application filed with the internship coordinator no later than three months prior to the semester in which the student plans to enroll in Criminal Justice 470 or 471; personal interview with the internship coordinator; and a 2.00 grade point average, both overall and in criminal justice. Every semester. *Prerequisite: criminal justice major, junior standing,* and approval *of* instructor. Courses *may be taken* concurrently or consecutively. Graded *satisfactory/no credit.*

485 Integrative Criminal Justice Systems Seminar (3)
Discussion of selected system-wide problems and topics in criminal justice. Research and oral presentation by the student. Formerly CRMJ 450 Every semester. Prerequisites: CJP *1010, senior standing, criminal justice major,* methodology *course.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See "Departmental Honors," page* 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

CONSORTIUM COURSES

UTC *has entered into a criminal justice consortium agreement* with Cleveland State *Community College. Under* this agreement, all required criminal *justice courses at the freshman and sophomore levels -CJP 1010 and 1070-are taught* by Cleveland State, and all courses at the junior and senior levels are taught *by UTC. For the* convenience *of UTC students,* Cleveland State *Community* College *offers on the UTC campus these required courses listed below, and they are accepted as transfer credit.* Questions concerning advisement and registration *for Cleveland]* State *courses should be directed* to the *Director of the School of Social and Community Services.*

CJP 1010 Overview in Criminal Justice Systems (3)
Criminal justice administration emphasizing roles of police, courts, corrections and juveniles. 3 hours per week. Formerly CJP 101.

CJP 1070 Criminal Law (3)
Substantive aspects of criminal law, including general principles applicable to criminal conduct; specific analysis of particular crimes and substantive defenses to crimes. 3 hours per week. Formerly CJP 112.

*CJP-Cleveland State criminal justice consortium courses.

Human Services

Dr. Marvin Ernst, Coordinator

The Human Services Management Program provides basic preparation for entry level supervisory and managerial positions in nonprofit, public and private organizations which provide a broad spectrum of human and community services. The Human Services Management Program is affiliated with American Humanics (a national organization offering certification to undergraduates in nonprofit administration). Three concentrations are available: Nonprofit Management; Allied Health Management; and Emergency Systems Management.

Human Services Management: Nonprofit Management (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: Completion of intensive writing requirement within major (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities 1 and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, 111 (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours; approved related course below will apply)

Exercise Science, Health and Leisure Studies 021 plus one additional, semester exercise science activity.

Major and related courses
Psychology 101 and Psychology 221, 222 or 223
12 Cognate areas: business management, criminal justice, economics, legal assistant studies, political science, psychology, social work, sociology/anthropology
3 Mathematics 210 or Sociology 314 or Criminal Justice 311 or approved equivalent course
35 Human Services 202, 300,301, 330, 340,405,420,425,440,450,471
7 hours practicum from Human Services 470 or 472, 474

2.0 average in all Human Service Management courses

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

Human Services Management: Allied Health Management (B.S.)

General Education (see pages 29-31* for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: Completion of intensive writing requirement within major (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities 1 and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, 11, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, other than Music 111, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours; approved related course below will apply)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

Licensure or registry in an American Medical Association approved allied health specialty required *for admission to* this concentration
9Mathematics210orSociology314orCriminalJustice311 and PsychologyC101, Psychology 221 or 222 or 223
35 Human Services Management 202,300,301,330,340,405,410,420,425,440, 450,471
12 approved allied health clinical courses from an accredited college or university
7 approved allied health clinical course work. Student must be Licensed in a AMA allied health field and an minimum of two years experience in an allied health field of HSRV 470 or HSRV 472 and HSRV 474
2.0 average in all human services courses and Business Management 315

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours (the last 60 hours must be completed at four-year institutions with the last 30 hours at UTC)

Human Services Management: Emergency Systems Management (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity

Major and Related Courses
9 Mathematics 210 or Socology 314 or Criminal Justice 311 and Psychology C101 and 221 or 222 or 223
35 Human Services 202, 300, 301, 330, 340,405,410, 420,425,440,450,471
12 Human Services 350, 355, 430, 435
7 HSRV 470 Human Service Practicum or approved certification course work in emergency management systems or additional electives as prescribed by and HSRV advisor.
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours (the last 60 hours must be complete at four-year institutions with the last 30 hours at UTC).

HUMAN SERVICES MINOR

12 HSRV 202, 301, 405, 440
6 One concentration
Planning: HSRV 202, 301, 405, 440
Operations: HSRV 330 and 340 or 407r
General Perspectives: HSRV 300 or 304 or 498r

HUMAN SERVICES COURSES

101 Team Participation (3)
Analysis of the importance of working in groups in today's society; examination of theories and research related to formal and informal groups; study of the empirical approaches to understanding groups; application of behavior and social science research. Every semester

199r Special Projects (1-4)
Individual or group projects. Every semester. Prerequisite: approval *of the department head. Maximum credit 4 hours.*

202 Introduction to Human Services Management (3)
A study of aspects of the human services system that have evolved as a response to the characteristics of urban society, and the organizations which function as components of the system. (Formerly 102.) Spring semester.

300 Perspectives on Work and Professions (3)
A multidisciplinary examination of the social, ethical, political, and psychological environment of work and the professions. Emphasis on the historical development of the meaning and effect of work'on the organization and development of various work structures and processes. Every semester. Prerequisite: English 122.

301 Social Change and Social Policy (3)
A cross-disciplinary examination of basic theories of social change. Analysis of social indicators as determinants of social policy for effecting social reform in the United States. Fall semester.

304 Gender in the Workplace (3)
The impact of gender in the workplace. A close study of cultural factors as they pertain to modern attitudes, beliefs, and practices concerning working men and women. Formerly HSRV 204. Prerequisite: English 122 or equivalent.

330 Human Services Program Planning (3)
Principles of agency and program planning. Consideration of the role or community needs assessments. Emphasis upon skills leading to basic competence in designing and implementing human services. Fall semester. Prerequisite: HSRV *202*

340 Human Services Program Evaluation (3)
Introduction to the concepts and practices of human services program evaluation. Emphasis upon program evaluation as a research process. Hands on experience with the techniques, procedures, computer applications and conclusions and reports of evaluation. Spring semester. Prerequisite: HSRV *330.*

350 Introduction of Emergency Systems Management (3)
This course is an introduction to the field of emergency management, including history, evolution, and important foundations. Concepts of comprehensive emergency management (CEM) and integrated emergency management systems (1EMS) are explored within the context of systems theory. Prerequisite: HSRV 202 or *approval of* instructor

355 Hazard Mitigation (3)
This course is an introduction to the basic approaches and understandings of hazard mitigation and introduction to the basic tools regarding hazard mitigation that can be used in the actual work environment. Prerequisite: HSRV 202 and 350 or approval *of instructor.*

405 Interpersonal Skills Laboratory (3)
A supervised laboratory experience designed to enhance the student's development of communication skills, interpersonal functioning, and the understanding of group processes. Every semester. Prerequisites: 6 hours *of* behavioral sciences and junior standing.

410 Fiscal Management in Human Services (3)
This course is designed to acquaint students wit with the basic concepts of budgeting and fiscal management needed for the successful management of a human service agency. Fall semester. Prerequisites: HSRV *202 and 340.*

420 Resource Development in Human Service Organizations (3)
This course is designed as an examination of various ways to increase the resource base of human service organizations. Emphasis is on generating additional funds through effective use of available resources both internal and external to the organization. Spring semester. Prerequisite: HSRV 410 or approval *of the* instructor

425 Legal Aspects of Nonprofit Management (3)
The course examines the emerging legal issues facing nonprofit agencies by studying pertinent constitutional, statutory and case law. Moreover, students will be exposed to case studies to assist them in connecting law and agency practice. Fall Semester. May also *be registered as* LAS 425.

430 Hazardous Materials Regulation (3)
This course is designed to provide emergency systems management majors with a broad understanding of hazardous materials contingency planning and major regulations associated with it. Prerequisite: HSRV *202 and 340 or approved of the instructor.*

435 Disaster Recovery (3)
This course examines how disaster recovery is viewed from a variety of perspectives including public, private and nonprofits. Case studies are used to highlight the literature, common problems, issues and concepts of disaster recovery. Prerequisite: **HSRV** ***202 and 340 or approval of the instructor.***

440 Human Services Supervision (3)
Concepts and techniques appropriate to supervision in human services and governmental agencies and organizations. Fall semester. Prerequisite: HSRV *420* ***and 425 or approval of instructor.***

450 Seminar in Human Services Administration (3)
Administrative procedure, processes, planning, and decision-making in human services and governmental settings. Spring semester. Prerequisite: *440 or approval* ***of instructor.***

470 Full-time Field Instruction (7)
Supervised internship in a human services setting related to a student's academic and career goals. Admission must be obtained from the director of field placement at least 90 days prior to enrollment in the course. In addition, Human Services: Management majors must present evidence of a minimum 2.0 overall grade point average, fulfillment of writing requirement, and completion of Human Services 440 before enrolling in Human Services 470. Spring semester. Prerequisites: *440,* ***approval of the coordinator of field placement, and senior*** **standing; pass wiring requirement.** ***Corequisite: 47lr (2 hours). Graded on a satisfactory/*** **no credit** ***basis. Maximum 7 hours total in field placement.***

471r Field Seminar (1-2)
Concurrent integrative seminar emphasizing issues common to field experience **setting. Spring semester.** ***Two hours maximum. Prerequisite: Pass writing requirement. Corequisite: Human Services 470,472, or 474.***

472, 474 Part-time Field Instruction (4) (3)
Spring semester. See Human ***Services 470 description. Corequisite:*** **Human** ***Services 47lr(I hour).*** **Maximum 7** ***hours total in field placement.***

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-4)
Every semester.

498r Individual Studies (1-4)
Every semester.

499r Group Studies (1-4)
On demand.

Legal Assistant Studies

Assistant Professor Adam Epstein, Coordinator

The University of Tennessee at Chattanooga's Bachelor of Science with a major in Legal Assistant Studies is designed for students who wish to enter the legal field and work toward a high-quality bachelor's degree. The program also welcomes students who hold a two-year degree or who have had some legal and/or college courses. Students in the program must complete the University General Education requirements or transfer the equivalent and 53 hours of Legal* Assistant Studies course work and electives to total a minimum of 128 hours. The program has a 29 hour core of required courses and 24 hours from the specialty areas of which 12 hours are selected from the Legal Assistant Studies program, and 12 hours are selected from specified courses in other programs on campus with no more than six of these 12 hours at the 300 or 400 level from any one discipline.

Continuation and Graduation Standards:
In view of the nature of legal assistance and the fact that individual rights may be affected by individuals providing legal assistance, the following standards will be applied by the Legal Assistance Studies faculty:

1. To progress in Legal Assistance Studies, students are required to:
   a) maintain a 2.5 (4.0 = A) grade point average in all legal assistant studies courses, and;
   b) maintain an active liability insurance policy for the legal assistant practicum.
2. IfinthejudgementofthefacultythereisareasOntoquestion the academic, emotional, ethical, or professional fitness of a student, the faculty have the right to make recommendations regarding continuation in the program.
3. Students who fail legal assistant studies courses may not be allowed to progress in the program. Students may only repeat a Legal Assistant Studies course(s) one time.

Transfer Students
Transfer students majoring in Legal Assistant Studies must take a minimum of 15 hours form approved Legal Assistant Studies courses at The University of Tennessee at Chattanooga.

Legal Assistant Studies (B.S.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: One approved course in oral communication (3 hours)
Computer Literacy: CPSC 110 (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, 111 (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses
53 hours including 29 hours from Legal Assistant Studies core courses; 101, 210, 235, 330, 390, 435, 470, 471; and 24 hours including 12 hours from Legal Assistant Studies 220,225,230,240,245,250,300,340,350,450,497r, 498r, 499 and
12 hours form Political Science 221, 321, 322, 323, 421; Criminal Justice 325, 400, 405, 406, 408, 420, 430, 460; Social Work 305; Accounting 201, 202, 307, 335, 336; Finance 372; English 277; Environmental Sciences 410; Philosophy 425. No more than six of these 12 hours at the 300-400 level from any one discipline.
2.0 average overall, 2.0 UTC average and 2.5 average in Legal Assistant Studies courses.

Minimum of 15 hours LAS courses at UTC.
Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours.

LEGAL ASSISTANT STUDIES COURSES

101 Law and The Legal Assistant (3)
Introduction to the study of law and the legal system the legal assistant in the legal system; an overview of the skills of the legal assistant including legal interviewing, investigating and professional ethics. Every semester.

210 Legal Research and Writing (4)
Introduction to primary and secondary legal sources including federal and state court reports; legal digests and Shepard s annotated law reports; federal administrative law; legal periodicals with indices; treatises and restatements; and research aids. Fall semester.

220 **Real Property Law (3)**
Review of substantive law relating to real estate transactions. On demand.

225 **Commercial Law (3)**
Introduction to the execution, validity and enforcement of contracts, mortgages, pledge assignments and other security devices. Overview of federal and state law regulating consumer credit and collection procedures. On demand.

230 Estate **and Trust.Law** (3)
Introduction of Tennessee substantive law of successions and dominions, including wills and estate administration. On demand.

235 **Litigation 1 (3)**
Introduction and analysis of the litigation process in federal and state courts. Lectures are supplemented with drafting practice. Spring semester.

240 Business Organizations (3)
Analysis of sole proprietorship, partnerships and corporations from a legal perspective. On demand.

245 Family Law (3)
Review of substantive law relating **to** marriage, children and property. **On** demand.

250 **Personal Injury Practice (3)**
An examination of tort, workmen's compensation and insurance law as it relates to personal injury. Prerequisite: LAS 210

300 Interviewing **and** Investigation (3)
An in-depth study of principles, methods and investigative techniques utilized to locate, gather, document and disseminate information The emphasis will be on developing interviewing and investigating skills intended to prepare the legal assistant to communicate effectively. On demand.

330 Legal **Computer Applications (3)**
Orientation, examination, and demonstration of computer hardware and software available for use within the lawoffice, and identification of potential applications for computerized solutions to law office needs. Fall semester. Prerequisite: CPSC 1*10.*

340 Law Office **Management** (3)
A study of the techniques and approaches to the efficient operation of a law office. Prerequisite: LAS 330.

350 Law of Evidence (3)
Introduction to the law of evidence in Federal and State (Tennessee) Courts including the purpose and construction; burden of proof; admissibility and presumptions; relevancy; privileges and hearsay. Prerequisite: LAS 235.

390 Advanced Legal Research and Writing (4)
Utilization of traditional and computerized legal research methods in written assignments. Emphasis is on the analysis of fact situations, methods of effective research and use of legal materials in working practical problems; examination of basic and advanced search techniques using the major legal databases Lexis and Westlaw. Spring semester. Prerequisites: LAS *210, 5i0.*

425 Legal Aspects of Non-Prof it Management (3)
See Human Service Management 425

435 Litigation II (3)
Detailed analysis and practice of pretrial discovery, pretrial motions, evidence, trial preparation, assistance at trial motions and post-trial motions. Fall semester. Prerequisite: LAS 235

450 Maritime Law (3)
Review of substantive maritime law and its procedural application to federal and state regulations. Prerequisite LAS *235.* On demand.

470 Legal Assistant Practicum (6)
Practicum to give the student experience in a selected area of legal specialization under the supervision of an attorney. Legal Assistant ethics are discussed. Every semester. Prerequisite: *senior* standing or approval *of coordinator.*

471 Legal Assistant Seminar (3)
An integrative seminar emphasizing ethical and related issues common to legal assistant theory practice and procedures. Prerequisite: senior standing or approval *of coordinator.* Spring semester.

497r Independent Research (1-4)
On demand.

498r Independent Studies (1-4)
On demand.

499r Special Topics (1-4)
On demand.

Social Work

Dr. Peter Simbi, *Coordinator*

The social work program prepares professional social workers for beginning practice as social work generalists capable both of functioning in a variety of agency and community settings and of practicing with diverse populations. The curriculum provides knowledge and skill for working with individuals, families, groups, organizations, and communities. The social work program is accredited by the Council on Social Work Education.

Admission Policies
Enrollment in the social work program is limited. Application alone will not insure admission. Students pursue the Bachelor of Social Work degree. Students wishing to enter the social work program should designate *presocial work* as their major. Once this declaration has been made the student will be assigned to social work faculty for advisement. Presocial work majors are required to fulfill the following for admission to the social work program:

1. Earn a 2.0 cumulative grade point average in 45 semester hours which include the following prerequisite courses:
   Biology 121
   Sociology 151 or Human Services 101
   Psychology 101
   Political Science 101
   Economics 101
   Anthropology 208
   Social Work 150
2. Apply to become a social work major prior to enrolling in SOCW 300. Formal application for admission includes:
   a. Obtain and complete application form from the office of the Social Work Program.
   b. Submit written self-assessment.
   c. Submit autobiography.
   d. Indicate subscription to the Social Work Code of Ethics.
3. The Social Work Admissions and Continuation Committee (SWACC) reviews applicants and makes recommendations. The decisions of the SWACC are given to applicants in writing.

4- Upon acceptance in the program and completion of Social Work 300 students will file for field placement. All field placement assignments are made by the director of field instruction. In the event that more qualified students submit applications than there are vacancies, the SWACC reserves the right to apply additional screening procedures. Academic credit for life experience and previous work experience is not given, in whole or in part, in lieu of the practicum or social work courses.

Continuation Standards

The committee will review cases involving the academic, emotional, ethical, and professional fitness of social work students and will make recommendations regarding continuation in the program.

The student will be notified in writing of the SWACC's recommendations. All recommendations of the SWACC are subject to review by the coordinator of the Social Work Program, who may grant exceptions when deemed desirable or necessary.

Social Work (B.S.W.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: 2 approved courses in rhetoric and composition (6 **hours)**
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and 11 (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least one including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

43 hours social work core including 150,205,300,301,303,304,305,370,371, 404,406,470,471
37 hours cognate courses including Psychology 101 and one additional 3 hour course in psychology. Sociology 151 or Human Services 101, Anthropology 208, English 277 or 279 or 300, Biology 121, Sociology 305, Psychology 308, Philosophy 221 or 322 or 425, Political Science 101, and Economics 101, and an approved introductory statistics course (Mathematics 210 recommended)
2.5 average in major and cognate courses combined, Required for graduation.

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours.

SOCIAL WORK MINOR

19 hours of Social Work courses including 150,205,301 and 9 hours of electives.
Elective hours may not include Social Work 300,304,370,371,404,470,471.
Minimum 2.0 average in the minor.
Social Work majors may not elect this minor.

SOCIAL WORK COURSES

100 **Volunteerism and Civic** Responsibility (2)
Introduction to the role of civic responsibility in voluntary community service. An overview of the history and philosophy of American philanthropy. Designed for non-social work major. On demand. *Corequisite: 102.*

102 **Volunteer** Community Experience (1-2)
Supervised volunteer community service in approved settings. On demand. Corequisite: 100.

150 Introduction to the Field of Social Welfare (4)
An introduction and orientation to selected social welfare professions. An examination of the history and recent trends in social work and related fields. A minimum of 45 hours of observation and supervised volunteer service in appropriate settings required. Every semester.

160 Sign Language with the Deaf (3)
A beginning analysis of the effect of deafness on communication and introduction of sign language for communication with the deaf. On demand.

199r Special Topics (1-4)
Individual or group projects. On demand. Prerequisite: approval *of department head.* Maximum credit *4 hours.*

204 Explorations in Human Relations (3)
A systematic examination and analysis of social and psychological phenomena occurring in human transactions. Development of essential knowledge of affective behaviors, relations with others, and the dynamics of communication processes. On demand.

205 Social Welfare Policy and Programs (3)
Survey of social welfare programs widi emphasis on policy description, formation, and analysis. Attention given to historical development and present structure. Every semester. Prerequisite: SOCW150, Political Science *101, Economics 101*

210 Comparative Studies in Minority Family Life (3)
A systematic examination of variations in the family through a comparative analysis of select racial and ethnic minority families. Every semester.

250 Charity **in** Western Civilization (3)
An historical examination of die structure and philosophy of the human response to the needy in Western civilization. On demand.

300 Basic Skills **for** Social Work Practice (4)
Fundamental skills and theory for practice in die field of social work. Emphasis upon communication skills, informational systems, organizational structure, policy, and their impact upon role execution. Spring semester. Prerequsite: SOCw" 205 Not open to *pre-social work* students.

301 Human Behavior in the Social Environment (3)
Examination of the various levels of human growth, development, and behavior widi a focus on person-environment interaction. Every fall semester. Prerequisites : 205, Anthropology 208, *Psychology 101, Biology 121, Sociology 151 or* Human Services 101.

303 Introduction to Applied Research (3)
An examination of die role of research, its functions in identifying needs, describing and evaluating programs, analyzing processes, and predicting results. *Prerequisites: SOCW 205, an approved introductory statistics course.*

304 Introduction to Social Work Methods (3)
An introduction to the methods, procedures, value orientations, and functions common to social work practice. Consideration of the relationship of such methods and procedures to crises in social functioning and human development. Fall semester. Prerequisites: SOCW*205, 300, 301. Corequisues: 370, 371.*

305 Legal Issues in Social Work (3)
Identification and analysis of common legal issues and problems encountered by the professional social worker. Fall semester. Prerequisite: English *277 or 279 or 300.*

311 Interviewing in the Helping Professions (4)
An in-depdi examination of the interview process, focusing on information-gathering, appraisal, and therapeutic interviews. Emphasis on developing proficiency in interview procedures essential to effective performance, to select specialty interviewing situation, to special populations, and to special aspects of interviewing. On demand. Lecture 3 *hours, laboratory 2 hours.*

315 **Child Welfare** Services and Policies (3)
An examination of contemporary issues and questions in the field of child welfare with emphasis upon child abuse and neglect (both institutional and parental), child care, health, adoptions, and services to the unwed parent and the out-of-wedlock child. On demand.

320 Introduction to Social Group Work Practice (3)
An introduction to theoretical frameworks for using social groups as mediums to bring about individual and group social treatment; identification and examination of group development and processes with specific reference to principles for social group work practice. On demand.

350 Mental Health Services and Policies (3)
This course provides students with an understanding of mental health policy and the organization and functioning of the mental health delivery system at the state and local levels.

370 Field Instruction I (4-6)
An opportunity for application and integration of theory and practice through supervised experiential learning in a social agency or setting. A minimum of 12 hours per week in the agency setting and a 1-hour integrative seminar required. Fall semester. *Prerequisites: 205* or 300. Corequisites: *304,* 371.

371 Field Seminar I (2)
An integrative seminar emphasizing issues common to social work theory, methods, and field experience. Fall semester. Prerequisites: SOCW *205,300. Corequisites: SOCW 304, 370.*

401 Health Care Services and Policies (3)
Designed to introduce the student to the health care system. Focus will be upon die effect this system has for social work. On demand.

404 Advanced Social Work Methods (3)
Additional opportunities for students to refine and extend their skill in social work intervention. Examination of theories of intervention and implications for practice. Attention given to practice in selected specialized settings. Spring semester. Prerequisites: SOCW303*, 304, 370, 371; Corequisites: SOCW400, 471.*

406 Social Work Values and Ethics (3)
An in-depth study of the consequences of prejudice for social work practice with the disadvantaged, minorities, and culturally different. Not open to pre-social work students. Spring semester.

411 Intervention with Families (3)
An examination of problems experienced by families in contemporary American society and the role of social work in relation to these problems. Specific areas of concentration will include emotional and physical abuse (both child and adult), child neglect, divorce, changing values relating to sex roles and patterns of heterosexual and homosexual relationships. On demand.

415 Child Abuse (3)
An examination of dynamics in abusing families with emphasis on causal models. Analysis of the child welfare system, public agencies, the courts, and role of law enforcement. Developmental delays and deviations in personality resulting from abuse will be evaluated from a psychiatric perspective. Discussion of model systems for emergency intervention and treatment. On demand.

420 Women's Issues (3)
An examination of issues faced by women in contemporary society and the role and responsibility of social work and other helping professions in responding to women's issues. On demand.

421 Crisis Counseling: Women (3)
Designed to introduce the student to crisis counseling. Focus will be on the special crises that occur in women's lives. On demand.

425 Alcohol and Other Substance Abuse Services and Policies (3)
Explore major topics in alcohol and other drug abuse (AODA). Emphasis on current and past AODA problem defmitions as they affect social policy and social program responses to AODA. The role of Social Work in AODA policy and program development is explored. On demand.

430 Social Work Practice with the Dying (3)
A multi-disciplinary exploration of the phenomena of death and dying and their implications for social work practice. On demand.

431 Social Work Practice for the Aged (3)
A multi-disciplinary approach to the development of an understanding of the roles, treatment modalities, and practice settings in which the professional social worker may become involved working with older adults. On demand.

432 Aging Services and Policies (3)
Strategies of social intervention designed to meet the specific needs of the aged population. Attention given to social policy development in the area of aging. On demand.

434 Adaptation to Loss in Later Life (3)
Focus on the many losses associated with everyday living for the elderly, include ing such events as nursing home placement, death, separation, and aging with emphasis on intervention skills for the service provider. On demand.

440 Social Work Supervision (3)
An examination of the objectives and methods of social Work supervision. On demand.

445 School Social Work and Law (3)
This course addresses the practice of social work in school settings, including the organizational and legal context particular to school settings and common problems encountered in schools.

450 Community Social Work (3)
Problems and issues facing communities in the United States. Theories and methods related to community organizing, social action, and community development. The role of Social Work in responding to the problems and needs of communities.

470 Field Instruction II (6)
Advanced field instruction in a supervised social work or agency setting. A minimum of 20 hours per week required in such agency or setting. Students must demonstrate necessary knowledge and skills required for beginning practice. Concurrent 2-hour integrative seminar emphasizing issues common to field experience. Spring semester. *Prerequisites: SOCW* 303*, 304, 370, 371; Corequisites: SOCW 404,471.*

471 Field Seminar II (2)
An advanced integrative seminar emphasizing issues common to social work theory, methods, and field experience. Spring semester. *Prerequisites:* SOCW *303, 304, 370, 371; Corequisites: SOCW 404, 470, Not open to pre-social work major.*

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. *See "Departmental Honors," page 36.*

497r Research (1-4)
On demand. *Prerequisite: approval of department head.*

498r Individual Studies (1-4)
On demand. *Prerequisite: approval of department head.*

499r Group Studies (1-4)
On demand. Prerequisite: approval o/department *head.*

School of Nursing

Professor Dana Harries Wertenberger, *Director*

Accreditation
The School of Nursing is approved by the Tennessee Board of Nursing and is accredited by the National League for Nursing, Accreditation Council and Commission on Collegiate Nursing Education.

Prenursing
Students must meet the same admission requirements as all other applicants to the University. Academic advising for all students declaring prenursing or nursing majors must be done by a member of the nursing faculty.

Enrollment in the nursing major is limited. Admission to the University does not ensure acceptance into the nursing major.

Eligibility Requirements for Participation in the Nursing Program
Nursing is a practice discipline, with cognitive, sensory, affective, and psychomotor performance requirements. The faculty of the School of Nursing has identified the skills and professional behaviors that are essential to pursue a course of study to be eligible to write the National Council Licensure Examination-R.N. and practice as a professional nurse. In order to progress in the nursing curriculum, a student must possess a functional level of capability to perform the duties required of a professional nurse. The essential eligibility requirements for participation in the nursing program are identified as Core Performance Standards.

These standards are adopted from the Southern Council on Collegiate Education for Nursing and are congruent with the skills presented in the document entitled Essentials of Baccalaureate Education for Professional Nursing revised (1998), a publication of the American Association of Colleges of Nursing. If these standards cannot be achieved by the student, either unassisted or with dependable use of assistive devices, the faculty reserves the right to exclude the student from clinical areas. Potential students are provided copies of the Core Performance Standards upon request. A copy of the Essentials of Baccalaureate Education for Professional Nursing Practice (1998) is available for review in the school's Office of the Director.

The Nursing program include clinical components, practica and internships in which student's effectiveness is evaluated by faculty and/or preceptors. Prior to and during contact with clients in clinical assignments, practicum experiences and internships, students are expected to evidence good judgement, ethical conduct and appropriate emotional functioning. These evaluated by the School of Nursing faculty using professional nursing standards.

These certain programs, along with the evaluative factors involved, are listed with the Director of School of Nursing and Dean of College of Health and Human Services. A student dismissed from the School of Nursing for not meeting these standards has the right to appeal the decision. Information about the process of appeal is available in the UTC Student Handbook and the Undergraduate Catalog.

Admission to the Nursing Major (for non- RNs)
Students desiring admission or readmission to the nursing major must **submit a completed** written application on forms available from the School of Nursing. Candidates for the nursing major (Nursing 251-254) must make formal application by July 15 for the fall class and by September 30 for the spring class. Students applying for readmission or transferring from other nursing programs should submit written application three months prior to the desired enrollment date! Deadlines for submitting application: July •j 15 for the fall class and September 30 for the January class. Enrollment is limited and the number of qualified applicants exceeds the number of students who can be admitted. Selection by the academic affairs committee is based upon an evaluation of the following factors:

1. Completion of credit hours required for sophomore classification including the following prerequisite courses with no grade lower than a C and a minimum grade point average of 2v5 on a 4.0 point scale at UTC.
   Chemistry 121
   Chemistry 168 or Biology 121
   Biology 191, 208, 209, 210
   English 121, 122
   Psychology 101
   Nursing 226
2. Students who have credit for chemistry, pathophysiology, microbiology, or physiology which was received 10 years prior to admission to the nursing major must either repeat or test out of these courses:
3. Physical and emotional characteristics appropriate for nursing practice.
4. Science competency. The nursing major includes a strong biophysical science component; therefore, individuals who have repeated any science course may be considered on a selected basis only.
5. Preference will be given to applicants who have completed their prerequisite courses at UTC.

Candidates will receive written notification of their admission status. Individuals who are not accepted for a given class, and who desire to be considered for the next class must reapply.

The faculty in the School of Nursing reserve the right to make exceptions to the admission requirements. Written requests for exceptions to admission requirements, supported by evidehce of extenuating circumstances, will be considered by the academic affairs committee after an official application for admission to the School of Nursing has been filed.

Acceptance of transfer and substitute credits in nursing to meet requirements of the curriculum will be determined by the school faculty. A student who transfers into the nursing program at UTC will be required to repeat any nursing or other required courses which are not considered comparable to the UTC curriculum or in which the grade earned is lower than a C. Transfer students must meet the same standards as other students in the program.

Expenses and Transportation
In addition to regular education costs, nursing students must meet the following expenses: uniforms, standardized test fees, and yearly liability and health insurance. Some nursing courses may require lab fees. Since clinical experiences in nursing are obtained in a variety of health care settings in local and remote areas, students are individually responsible for transportation to these sites.

Insurance and Health Requirements
Students must meet specific physical examination and immunization requirements as specified by state law and by the rules and regulations set forth by the various clinical agencies. All students must have health insurance and must participate in the school's liability insurance program. Specific information concerning these requirements will be provided to the students at appropriate times * by the nursing faculty.

Licensure
Upon successful completion of the baccalaureate program in nursing, and upon certification by the faculty and director that the student posses **the** educational requirements is eligible to write the National Council of State Boards of Nursing Licensure Examination. Persons previously convicted of a felony may not be permitted to write the NCLEX exam.

Continuation Standards (for non-RNs)
In view of the nature of nursing and the fact that maintenance and quality of human life may be adversely affected by individuals providing nursing care, the following standards have been adopted and are applied by the nursing faculty.

1. To progress in nursing, students are required to: a) make a minimum grade of C in all nursing and required courses (exclusive of electives); b) maintain a cumulative grade point average of 2.0; c) maintain active liability and health insurance policies for clinical courses; and d) maintain current CPR certification, and meet School of Nursing health requirements.

2. Students who fail any portion of a clinical course series* may repeat the failed course(s) *one* time. Additional failure in any portion of **a** clinical course series will result in dismissal from the nursing program.

3. Students who fail non-clinical courses may be denied progression in the program.

4. Students who do not complete a course, or who make a grade below "C", and who are eligible to repeat a course, are permitted to register for that course on a space-available basis.

5. If in the judgement of the professor there is reason to question the emotional or physical condition of a student or the safety or quality of nursing care provided, the professor has the right and obligation to exclude the student from the clinical area. The incident or reason underlying such an action shall be brought to the attention of the course faculty on or before the next clinical day. The student will receive written notification of the recommendation of the course faculty. Should the decision be unacceptable to the student, he/she may appeal to the director, **and** thereafter in accordance with University policy.

6. Exceptions to the above policies may be made at the discretion of the academic affairs committee or **the** director of the School of Nursing.

*Clinical courses series includes Nursing (252, 253, 254), (327, 328,329), (352,353,354), **(426,427,**428,429), (453,454).

Gateway Program for Registered Nurses
The Gateway Program is a flexible curriculum which enables registered nurses to obtain baccalaureate degrees in nursing while maintaining their roles in careers and families. Planned with the mid-career RN in mind, the Gateway Program is individualized and allows maximum college credit for previous educational experiences. The prospective RN student is encouraged to seek advisement from the RN Coordinator and transcript evaluation from the Records Office prior to embarking upon this program of study.

Admission to the Nursing Major (for RNs)

1. Provide proof of current registered nurse licensure.
2. Complete an application for admission to UTC General university requirements for admission to UTC must be met. Transcripts from high school and all postsecondary education must be submitted at the time of application.
3. Show eligibility to return to the last educational institution attended and meet UTC's continuation standards (see UTC undergraduate catalog).
4. Successfully complete the following prerequisites:
   a. English 121
   b. English 122
   c. Math 106 or equivalent
   d. Regents College Examination of the equivalent clinical courses in the upper division of a four year college or university.
5. Show a C average on all postsecondary courses.

Continuation Standards (for Gateway Program)

1. Students must be admitted to the nursing major before taking
   a. Nursing Science II Research (326)
   b. Community Health Nursing (327)
   c. Professional Nursing I (351)
   d. Nursing Science III (451)
   e. Professional Nursing II (452)
   f. Nursing Practicum VI: The Community (454)
2. To progress in nursing, students are required to:
   a. Make a minimum grade of C in all nursing and required courses (exclusive of electives)
   b. Maintain a cumulative grade point average of 2.0
   c. Maintain current immunizations and CPR certification
3. Students who fail any portion of a clinical course series* may repeat the failed course(s) one time. Additional failure in any portion of a clinical course series will result in dismissal from the nursing program.
4- Students who fail non-clinical courses may be denied progression in the program.
5. If in the judgement of the professor there is reason to question the emotional or physical condition of a student or the safety or quality of nursing care provided, the professor has the right and obligation to exclude the student from the clinical area. The incident or reason underlying such an action shall be bought to the attention of the course faculty on or before the next clinical day. The student will receive written notification of the recommendation of the course faculty. Should the decision be unacceptable to the students, he/she may appeal to the director and thereafter in accordance with university policy.
6. Students must provide proof of a physical examination within the year, updated immunizations according to the infection control policy, active health insurance policy, and obtain liability insurance from UTC prior to taking clinical courses.

7. A student who transfers into the nursing program at UTC will be required to repeat any nursing or other required courses which are not considered comparable to the UTC curriculum or in which the grade earned is lower than a C.
8. Exceptions to the above policies may be made at the discretion of the academic affairs committee or the director of the School of Nursing!

*Clinical courses series includes Nursing (252, 253, 254), (327, 328,329), (352,353,354), (426,427,428,429), (453,**454).**

Nursing (B.S.N.)

General Education (see pages 29-31 for list of approved courses)
Rhetoric and Composition: Two approved courses in rhetoric and composition (6 hours)
Intensive Writing: One approved course in intensive writing (3 hours)
Oral Communication: Completion of oral communication requirement within major (3 hours)
Computer Literacy: One approved course in computer literacy (3 hours)
Cultures and Civilizations: Option a: Western Humanities I and II (6 hours) and Nonwestern Cultures and Civilizations (3 hours) or option b: World Civilization I, II, III (9 hours)
Humanities and Fine Arts: Two approved humanities and fine arts courses, one from fine arts and one from either (6 hours)
Behavioral & Social Sciences: Two approved behavioral or social science courses in two different disciplines. (6 hours)
Natural Sciences: Two approved natural science courses, at least on including a laboratory component (7-8 hours)
Mathematics: One approved mathematics course (3 hours)
Statistics: One approved statistics course (3 hours; approved related course below will apply)

Exercise Science, Health and Leisure Studies 021 plus one additional semester exercise science activity.

Major and related courses

2.5 average required for admission to the nursing major with no grade lower than C in any required prerequisite course
6 hours behavioral sciences including: Psychology 101, 221
9 hoursof humanities including Philosophy 201 or 221 or 425, a history and a literature course
26 hours mathematics, natural, or applied science courses including: Biology 191, 208,209,210; Chemistry 121/123; Chemistry 168 or Biology 121; Mathematics 210; Human Ecology 135

Nursing 226,251,252,253,254,326,327,328,329,351,352,353,354,426,427, 428,429,451,452,453,454
Minimum grade of C in all nursing and required courses (exclusive of electives)

Minimum of 30 hours of 300 and 400 level courses
Electives to complete 128 hours

NURSING COURSES

100 Introduction to Nursing (3)
Theoretical introduction to concepts used in nursing practice. Open to non-majors. On demand.

199r Special Projects (1-4)
Individual or group projects. On demand. *Maximum credit 4 hours.*

222 Women's Health Issues (3)
A review of current literature and discussion of issues affecting contemporary women's health. The course will introduce the biological, psychological, social, economic, and cultural factors which affect the health of women in Western society. Students will be challenged to examine their attitudes on controversial issues such as birth control, childbirth alternatives, abortion, women's self image, and aspects of aging. On demand. Prerequisite: English 122 or its equivalent. Open *to* non-majors.

226 Pathophysiology (3)
Concepts of pathophysiologic events throughout the life span; includes pathogenesis, morphologic changes, clinical manifestations, and implications for treatment. Every semester. (Formerly Nursing 316) Prerequisites: Biology I9f, 208, 209orper> mission *of* instructor. Open *to non-majors.*

.251 Nursing Science I (3)
An introduction to nursing science as it relates to theory, practice, and research. Every semester. Prerequisite: 226 and admission td major. *Corequisites: 252,* 253, *and 254 or* permission *of* instructor.

252 Assessment I (3)
Prepares the beginning student to systematically organize and conduct a selected assessment of the health status and functioning of clients of all ages. Every semester. Prerequisite: 226 and admission *to major. Corequisites: 251, 253,254,* or permission *of* ***instructor.***

253 Adult Nursing 1(3)
Concepts of nursing care for adults, with emphasis on health promotion. Every semester. **Prerequisite: 226 and admission *to major. Corequisites -.251,252,* 254, *or permission of instructor.***

254 Clinical Practicum I: Health Promotion (4)
Nursing care of clients with emphasis on health promotion. Every semester. Laboratory: **12 clock *hours per* week. *Prerequisite: 226 and admission to major. Corequisites: 251, 252, 253 orpermision of instructor:***

300 Pharmacology (3)
An overview of pharmacology including drug classifications, action, use, and nursing implications and drug interactions. Legislation pertinent to drug control included. On demand. Open to non-majors.

322 The Physical Process of Aging (3)
A study of normal and pathological physical changes that are linked with the aging process. This course will include the implications of the physiological changes as well as strategies designed to ameliorate or limit health problems that may develop as individuals age. On demand. Open to non-majors.

326 Nursing Science II: Research (3)
An introduction to methods in nursing research emphasizing both nursing theory as a basis for research and the application of research in practice. Every semester. Prerequisite: Completion o/200-level nursing courses; statistics. Corequisites: *327,328', 329* or permission *of* instructor. (Formerly Nursing 321)

327 Community Health Nursing (3)
Concepts of primary nursing care in community health. Every semester. Prerequisite: **Completion *of 200Aevel* nursing *courses. Corequisites: 326,328,329 or* permission *of instructor.***

328 Psychiatric/Mental Health Nursing (3)
Concepts of nursing care for clients with mental health needs. Every semester. Prerequisite: **Completion *of200-level* nursing *courses. Corequisites: 326, 327, 329 or permission*** *of* instructor. (Formerly *Nursing 314)*

329 Nursing Practicum II: Community and Mental Health (5)
Nursing care of clients in the community and mental health systems. Every semester **Laboratory: J 5 *dock hours* per *week. Prerequisite: Completion of 200-level* nursing *courses. Corequisites:* 326, *327,328 or permission of* instructor.**

351 Professional Nursing I (3)
Introduction to concepts and issues as they relate to the development of the individual as a professional nurse. Every semester. Prerequisites *Completion* o/200-level nursing courses and 326,*327*,328 and 329. Corequisites: *352,353,354, or permission* ***of instructor.***

352 Nursing of Families 1 (3)
Concepts of nursing care for pregnant women and childbearing families. Every semester. **Prerequisites *Completion of 200-level* nursing *courses and 326, 327, 328 and 329. Corequisites: 351,353,354, or permission of instructor, (formerly* Nursing 418).**

353 Nursing of Families II (3)
Concepts of nursing care for children and child rearing families. Every semester. ***Prerequisites* Completion *of* 200-level nursing *courses and 326, 327, 328 and 329. Corequisites: 351,352 354, or permission of* instructor. (Formerly *Nursing 419).***

354 Nursing Practicum III: The Family (4)
Nursing care of childbearing and child rearing families in various clinical settings. Every semester. *Prerequisites Completion of 200-level* nursing *courses and 526, 527, 528 and 529. Corequisites: 551,552,555 or permission of instructor. (Formerly Nursing 420).*

414 Concepts of Primary Care Nursing (2)
Study of the nursing process relating to care of family systems and groups in the home or ambulatory care setting. *Prerequisites: completion of500-level* nursing *courses or permission of director. Corequisites -.415,416. (Last time offered spring 2000).*

415 Community Health Nursing Concepts (3)
Assessment of the community and the methods to plan, implement and evaluate nursing interventions. Every semester. *Prerequisites: completion* o/300-level nursing *courses or permission of director. Corequisites: 414,416. (Last time offered spring 2000).*

417 Issues in Nursing (2)
A review of current literature and discussion of issues affecting contemporary nursing practice. Every semester. Prerequisites: *completion of500-level* nursing *courses or permission of director. (Last time offered fall 1999)*

421 Leadership in Nursing (3)
Concepts: related to administration and supervision in the delivery of health care services. A minimum of 15 hours of clinical observation under the direct supervision of a nurse manager is required. Every semester. *Prerequisites: completion of 500-level* nursing *courses. (Last time offered spring 2000)*

426 Assessment II (3)
Builds on Assessment I: provides concepts and skills necessary to conduct basic physical examinations for clients of all ages. Every semester. *Prerequisite:* Completion *of 200 and 500 level* nursing *courses. Corequisites: 427,428,429 or permission of instructor. (Lecture 2 hours, laboratory 5* hours).

427 Adult Nursing II (3)
Concepts of nursing care of adults with alterations in functional health patterns in response to complex health problems (including cancer, immune, nutritional, and neurological disorders). Every semester.. *Prerequisite:* Completion *of 200 and 500 level nursing courses. Corequisites: 426, 428, 429 or permission of instructor. (Formerly Nursing 518)*

428 Adult Nursing III (3)
Concepts of nursing care of adults with alterations in functional health patterns in response to complex health problems (including respiratory, cardiac, renal and orthopedic dysfunction). Every semester.. Prerequisite: Completion *of 200 and 500 level* nursing *courses. Corequisites: 426, 427, 429 or permission of instructor. (Formerly Nursing 519)*

429 Nursing Practicum IV: The Adult (4)
Nursing care of adults with alterations in functional health patterns in response to complex health patterns. Every semester. *Laboratory: 12 clock hours* per *week. Prerequisite: Completion of2QOand500 level* nursing courses. *Corequisites: 426,427,428 or permission of instructor. (Formerly Nursing 520)*

434 Perioperative Nursing (4)
Concepts and skills necessary for the nurse to practice in a primary role in specialized Perioperative settings. On demand. Lecture 2 hours, clinical lab 6 clock hours. Prerequisites: Completion *of 500 level* nursing *courses or licensure as a registered nurse or permission of professor.*

435 Rehabilitation Nursing (4)
Concepts and principles of rehabilitation nursing including client and family care in rehabilitation and community settings. On demand. Lecture 2 *hours, clinical* 6 *clock hours. Prerequisites: Completion of all required 500 level courses, licensure as a registered nurse or approval of professor.*

440 Preparation for NCLEX-RN (3)
A review of the nursing process with integration of key concepts in the care of the adult client, care of the childbearing family, care of the child, and care of the client with psychosocial disorders. On demand. Open only to seniors in their final semester or permission of instructor.

451 Nursing Science III (3)
Synthesis of theory, practice, and research for entry into professional nursing practice. Every semester. *Prerequisite: Completion of 200 and 500 level nursing courses and 426,427,428,429. Corequisites: 452,455, and 454 or permission of instructor.*

452 Professional Nursing II (3)
Concepts and issues related to the role of the professional nurse in complex health care environments. Every semester. *Prerequisite: Completion of 200 and 500 level* nursing *courses and 426, 427, 428, 429. Corequisites: 451, 455, and 454 or permission of instructor.*

453 Clinical Practicum V (3)
Application of theory, practice, and research in a variety of clinical settings; preparation for entry into professional nursing practice. Every semester. Laboratory: 9 dock hours per *week. Prerequisite: Completion of 200 and 500 level* nursing courses and 426, *427,428,429. Corequisites: 451,452, and 454 or permission of instructor. (Formerly Nursing 450)*

454 Nursing Practicum VI (3)
Nursing care of the community as the client. Every semester. *Laboratory: 9 clock hours per week. Prerequisite: Completion of 200 and 500 level* nursing *courses and 426,427, 428,429. Corequisites: 451,452, and 455 or permission of instructor. (Formerly Nursing4l6)*

455r Advanced Childbirth/Women's Health Education (1-3)
The course enhances and expands the practice of nurses who work or will work with childbearing families and non-pregnant women. Advanced knowledge and skills are presented which enable students to assess and diagnose common gynecological and pregnancy-related problems. On demand. Prerequisites: Nursing4J8, 4J9, *420 or* RN license and physical *assessment.*

470 Oncology Nursing (3)
In-depth study of the status of cancer as a major health problem. Treatment modalities used for intervention and interruption of the neoplastic process are studied, emphasis on utilizing the nursing process in treating oncology patients. On demand.

495r Departmental Honors (1-3 hours per term, 4 hours for the two terms)
On demand. See "Departmental Honors," page 36.

497r Research (1-4)
On demand.

498r Individual Studies (1-4)
On demand.

499r Group Studies (1-4)
On demand.

Other Educational and Public Service Units

Computing Services

Computing services supports and provides facilities to handle the student records database, which includes recruiting, admissions, registration, fee payment, and graduation. It also supports such auxiliary functions as continuing education, parking, telephone services, and housing. The computing facilities available on the UTC campus include an HP3000 969/120,4-way HP9000/K570 and 4 Sun UNIX machines, all of which are used for instruction and research.The UTC campus computer network is connected to the Internet, supporting world wide web access for UTC computer users. In addition, this unit handles computerized testgrading for faculty.

Instructional and Computing Support Services

The primary function of Instructional and Computing Support Services is to provide support for technology across the campus. The unit is composed of the Help Desk, Microcomputer Training, Campus Student Microcomputer Labs, and Media Resources.

The Help Desk provides technical hardware and software support for faculty and staff. The Help Desk also installs and supports general campus site-licensed software applications, including operating systems, word processing, database, spreadsheet, e-mail, and Internet software. Hardware support includes troubleshooting and isolation of equipment problems, memory upgrades, and battery changes. In addition, the Help Desk provides laptops and digital cameras for faculty and staff to check out and use on projects away from the office or for classroom presentations.

Media Resources provides instructional audiovisual support to faculty and staff. Services include the delivery of audiovisual equipment to the classroom, videotaping of classroom lectures or demonstrations, and technical support for satellite teleconferencing.

The Microcomputer Training unit provides training and short courses to faculty and staff. Courses can also be arranged by departments or to individuals to cover specific applications that are supported by the campus.

There are several Campus Student Microcomputer Labs on campus. The labs provide students with access to common application packages as well as applications that are specific to disciplines, printing, scanning, and access to the Internet. Faculty may also reserve the student labs a maximum of twice a semester to teach paricular application packages to their students.

Grayson H- Walker Teaching Resource Center

The Grayson H. Walker Teaching Resource Center staff works with faculty to improve teaching and learning, and to intergrate technology into the classroom. The Walker Teaching Resource Center provides campus-wide faculty development seminars, workshops, and individual consultations on methods to improve teaching, learning, and to integrate technology into the classroom. Virtual workshops on topics are also available through the Walker Teaching Center website at http://www.utc.edu/Teaching-Resource-Center/. The Walker Teaching Resource Center also provides instructional design consultation for faculty who wish to produce multimedia and other instructional materials.

Center of Excellence for Computer Applications

The Center of Excellence for Computer Applications (CECA) is one of the original centers of excellence in Tennessee. Its mission is to conduct multidisciplinary research in the development and application for computer-based technologies, to support innovative research projects, and to provide exemplary dissemination, training, and support in advanced technology. CECA funds a variety of grant programs to suppott teaching, research, and outreach related to technology.

Lupton Library

The Lupton Library is the center of many teaching, learning, and research activities of the students, faculty, and staff of UTC, as well as members of the metropolitan Chattanooga community. The library maintains a collection of over 450,000 books.2,600 current periodical subscriptions, 23,000 reels of microfilm, and 11,000 audiovisual items. Total holdings comprise over 1.6 million physical pieces of material.

The Lupton Library's on-line catalog enables users to locate items in the library's collections. In addition, electronic access to databases which index and abstract magazine and journal articles in business, medicine and health, education, psychology, sociology, environmental studies, and many other areas is available in the library, or through microcomputers on campus which are connected to die UTC computer network, or from microcomputers off-campus which have a modem and appropriate communications software. Individuab connected to the Internet may telnet to the library's catalog or World Wide Web page.

To borrow materials from the Lupton Library, individuals must present a valid, barcoded identification card, known as a Mocs Card. The standard loan period for graduate students is 28 days. Along with the collections of UTC's Lupton Library, UTC students, faculty, and staff with valid identification cards are granted reciprocal borrowing privileges at all libraries of the University of Tennessee system.

Reference librarians staff the Reference Desk on the first floor of the Lupton Library during all hours of operation and are available for individual instruction on the use of the many resources owned and accessed by the library. They are also the best resource for service details and policy clarifications. Reference librarians also work with students who would like to search the more than 400 off-site databases offered through Dialog Information Services. However, this service is available only to those who are willing to assume the cost of the transactions.

UTC graduate students may borrow from other libraries materials which the Lupton Library does not own. This Interlibrary Loan service sometimes has charges which are paid by the requester.

Library materials which are lost or returned late are subject to fees. If fines are not paid as required, individuals will be blocked from use of the library. These individuals will also not be permitted by the business office and the registrar either to register or to receive course credits and transcripts until the outstanding obligations are fully cleared.

Adult Services Center

Margaret Daniel, *Coordinator*

The Adult Services Center, located on the first floor of the University Center, is open from 11 a.m. - 7 p.m., Monday through Thursday; 11 a.m. - 5 p.m., Friday; and 10 a.m. - noon, Saturday; for the convenience of students who work full time. The center provides individualized advisement, registration, fee collection, and other University services for adult part-time students. All admissions and transcript evaluations for second baccalaureate degree-seeking students are processed in the Center. Workshops and seminars related to educational opportunities and transitions are conducted regularly for individuals currently enrolled or individuals who are interested in either entering or returning to college.

Students who have received one bachelor's degree and desire to pursue a second bachelor's degree should apply for admission as postbaccalaureate students through the Adult Services Center. Questions regarding the pursuit of a second bachelor's degree should be directed to the Coordinator of the Adult Services Center. Tutoring is available in the Adult Services Center in the evenings during the fall and spring terms.

Senior Citizens and Disabled Persons
Free Audit Program

Persons who are over 60 years of age or totally disabled may audit courses at/The University of Tennessee at Chattanooga without charge in any class where there is space available beyond that needed for students who pay fees. Some courses which have special prerequisites or conditions are not available under this option. In addition, persons who are over 65 or totally disabled may, if admitted, enroll in credit courses for a fee of $7.50 per semester hour to a maximum of $75 per semester. The Adult Services Center assists the senior citizen or disabled individual by providing orientation to the campus, completing admission forms, and registering the individual for the course(s) selected. Persons interested in participating should contact the Adult Services Center rather than applying for admission at die UTC Admissions Office.

College Access Program

Debra Anderson, *Director*

The College Access Program (CAP) provides support services for college-level, learning disabled students at UTC, which includes academic advisement, tutoring, career testing and advisement, individual and group counseling, computerized remediation assistance, computer lab facilities, word processing skills, extended time on tests, college survival skills, psychological/academic testing, and university orientation.

The student must have certified documentation of the learning disability and should apply for admission to the College Access Program as a first step for enrollment to UTC. Students must also meet all criteria and be approved for admission to UTC\ Such approval must be received before final admission to the CAP program. Undergraduate applications for admission may

be obtained from the CAP Office or by writing the Office of Admissions at UTC. CAP does not, as a matter of policy, seek on its students' behalf a waiver of any course work or degree requirement nor does it guarantee that students will successfully complete these requirements. All CAP information is confidential, and students participate in regular university coursework with the guidance, assistance and encouragement of CAP staff. For more information, please come by the CAP office, located at 110 Frist Hall, or call (423) 755-4006.

Cooperative Education

Hugh Prevost, *Director*

The Cooperative Education Program is an innovative education program that allows students from all university curricula to combine classroom studies with paid, career-related preprofessional work experience. UTC students are placed in alternating semester jobs which require them to work full-time one semester and attend school full-time the next semester, or in parallel work assignments which require students to work 15-25 hours per week and attend school full-time or part-time each semester. The Co-op office also places students in paid major-related internships.

Students may enroll in the program anytime after they have been accepted into the University. Students may begin work, however, only after they have completed their freshman course requirements. When placed in a co-op position, students must register with their major department for course 001 at the beginning of each semester they are employed.

Students interested in exploring the opportunities offered by the Cooperative Education Program should come by 233 University Center or call (423) 755-4735 to make an appointment to see one of the Co-op coordinators.

Individualized Education Program

The Individualized Education Program (IEP) was begun to assist adult students who have not completed the requirements for a baccalaureate degree and who wish to enter or return to the University after working for several years. The program assists students in making the transition back into college and acts as the coordinating agent for awarding *elective credit* for the student's work experience, non-collegiate, in-service training experiences, or professional certification. Since being accepted as an official unit of the University in 1972, the program has awarded more than 1,000 students IEP credit from the University's participating departments.

Students interested in pursuing IEP elective credit are encouraged to contact the Office of Cooperative Education, (423) 755-4735, or come by 233 University Center to discuss their college plans with the IEP director. During this initial visit, students will be given an IEP application and a detailed explanation of the procedures to follow to complete the IEP process. After commpletion, each application is reviewed by the faculty of the petitioned department and credit awarded on the individual merit of the application. *Students should be aware that not all University's colleges, schools, or departments award IEP credit and that the sub' mission of an IEP application does not guarantee* the *award of elective, credit.*

Students pay a portfolio/registration fee of $50.00 and a fee based on the current University charges for each hour of IEP credit awarded.

Continuing Education and Public Service

Marilyn Willis, *Dean*

The Division of Continuing Education and Public Service provides high quality lifelong learning opportunities to individuals seeking personal growth or professional development programs, workshops or certificates; and college degrees to students who are located off-campus.

Off-campus and Distance Learning Credit Courses

Beth Dodd, *Director*

Tonya Pace, *Learning Distance* Manager

To meet the needs of individuals woh wish to complete degree programs at off-campus locations, a balanced schedule of credit offerings are presented at numerous locations including: Cleveland, Knoxville and downtown Chattanooga. Instruction includes both on-site and distance learning via real-time, two-way interacive telecourses. Persons interested in recieving off-campus instruction should contact the Division for further information.

Professional Development

Lisa Pinckney, Assistant *Director*

To meet the needs of individuals and groups seeking professional development learning experiences, Pathways to Excellence, a continuous learning process, is skill-based and offered in both public and customized formats. Pathways to Excellence includes over 100 modules designed to enhance professional growth in areas of Leadership, Performance Management, Quality and Workplace Teams and also offers thriteen certificate programs. Pathways to Excellence includes professional certification preparation programs for Professional Engineers, Professionals in Human Resource Management and Certified Public Accountants.

Our professional development programs award Continuing Education Units (CEU's) and the division maintains individual transcripts and issues certificates.

Community Outreach

Ginny Reese, *Assistant Director*

Jamie Cox, *Coordinator*

To extend university resources to the community, the Division offers personal development programs for all ages including Youth University, the Chattanooga Ballet, Elderscholars and courses in art, literature, foreign languages, recreation and others.

The Division coordinates the admission and advisement of local high school students participating in the Tennessee Joint Enrollment program and UTC's College Challenge Program.

We welcome suggestions for new programs.

Other Services

Additional services provided by the division include: l)provide assistance to business, industry, government, social service agencies and professional organizations for developing and coordinating conferences and institutes; 2) arranging meetings on the university campus; 3) coordinating UT statewide efforts (correspondence courses, UT Institute of Public Service programs.)

Student Support Services

Shirl S. Gholston, Director

The Division of Student Support Services, located in 213 Race Hall, provides free academic support services to all eligible UTC students. Specific services include:

Writing *Skills* — Small group and individual tutoring sessions in grammar, composition, and word processing are offered, with particular emphasis on teaching students die skills of revising and editing their own papers.

Tutoring—Graduate and undergraduate students with at least a 3.0 GPA provide individual tutoring in academic subjects on the freshman and sophomore levels.

Special *Workshops* — A schedule of study skills workshops for students on academic probation is offered each semester. In addition, reading and writing workshops are offered to students who wish to prepare for graduate school enrollment.

Peer *Mentoring* — The Peer Mentoring program provides participants with formalized interaction with successful upperclass students. The goal of the program is to help participants bond with the University and develop close relationships with peers.

Upward Bound

Booker T. Scruggs, II, Director

Upward Bound is a college preparatory program which provides eligible high school students with academic and cultural activities that improve their chances of entering and successfully completing postsecondary education. Students are recommended by their high school guidance counselors and are then selected by die Upward Bound staff. Upward Bound offices are located in 212 Race Hall.

WUTC

Dr. John McCormack, *Station Manager*

WUTC is the public radio station licensed to The University of Tennessee at Chattanooga. Operating at 88.1 FM, it provides a 24 hour-a-day broadcasting service. WUTC is the Jazz, Blues, Reggae, and informational programming source for this area. WUTC is the National Public Radio Station for the tri-state region.

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1997-98

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Music

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Sociology, Anthropology, and Geography

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Theatre and Speech

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College of Education and Applied Professional Studies

Teacher Preparation Academy

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Thomas E. Bibler, Professor, Head, Ed.D., Bali State University
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School of Educational Leadership Graduate Studies Division

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Exercise Science, Health, and Leisure Studies

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College of Engineering and Computer Science

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Jack Thompson, Professor, Ph.D., Texas A & M University.

College of Health and Human Services

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School of Social and Community Services

Criminal Justice

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School of Nursing

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College of Business Administration

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Joan E. Sompayrac, Assistant Professor, J.D., University of Cincinnati College of Law.
Gregory M. Thibadoux, Professor, Ph.D., University of Houston.
Richard A. Turpin, Assistant Professor, Ph.D., University of Alabama.
Karen J. Weekly, Assistant Professor, J.D., University of Washington School of Law.
Marilyn Willis, Associate Professor, Ed.D., University of Kentucky.

Adjunct Accounting and Finance

Allison A. Cardwetl, J.D., University of Tennessee, Knoxville.
Durwood Harvey, M.S., University of Tennessee, Knoxville.
Randall B. Hebert, MBA, The University of Tennessee, Chattanooga.
Earl S. Howell, M.L., Emory University.
Gary M. Hurst, M.Acc., The University of Tennessee at Chattanooga.
Joanna M. Johnson, M.B.A., The University of Tennessee at Chattanooga.
Lynda G. Scott, M.B.A., The University of Tennessee at Chattanooga.
EX. Kittrell Smith, J.D., University of North Carolina.
Patricia A. Smith, M.B.A., The University of Tennessee at Chattanooga.

Management

Mohammad Ahmadi, Hart Professor, Ph.D., North Texas State University.
Richard S. Allen, Assistant Professor, Ph.D., University of Pittsburgh.
Pathasarati DUeepan, UC Foundation Professor, Ph.D., University of Houston.
Lawrence P. Ettkin, White Professor, Department Head, Ph.D., University of Nebraska.
Marilyn M, Helms, UC Foundation Associate Professor, D.B.A., Memphis State University.
Lawrence S. Kteiman, Professor, Ph.D., University of Tennessee, Knoxville.
James Howard Macomber, Associate Professor, D.B.A., Kent State University-
Mark E. Mendenhall, Frierson Chair of Excellence in Business Leadership, Professor, Ph.D., Brigham Young University.
Judy C. Nixon, Professor, Ph.D., Georgia State University.
Edmund L. Prater, Assistant Professor, Ph.D., Georgia Institute of Technology.
Farhad M. Raiszadeh, Professor, Ph.D., Louisiana State University.
Charles Stephen White, UC Foundation Professor, Ph.D., Arizona State University.

Adjunct Management

David W. Britain, 111, M.B.A., University of Cincinnati.
Elisabeth Craig, Ed.D., University of Tennessee, Knoxville.
Darrell E. Douglas, M.A., Webster University.
Karen Ford Eickhoff, M.B.A., The University of Tennessee at Chattanooga.
Cynthia J. Guffey, M.B.A., The University of Tennessee at Chattanooga.
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Michael C. Varner, M.B.A., Hie University of Tennessee at Chattanooga.
Janice K. Veal, M.S., The University of Tennessee at Chattanooga.
Fred A. Ward, M.B.A., University of Virgina.
Cynthia R. White, M.B.A., University of Wyoming; M.S., The University of Tennessee at Chattanooga.
James Wyatt, M.B.A., The University of Tennessee at Chattanooga.
Richard G. Youngblood, M.B.A., Brenau University.

Marketing

Richard C. Becherer, Harris Chair of Excellence in Business and Entrepreneurship, Professor, D.B.A., University of Kentucky.
A. Richard Casavant Jr., Lorberbaum Professor, Ph.D., Georgia State University.
Diane Halstead, UC Foundation Associate Professor, Ph.D., Michigan State University.
Paula J. Haynes, UC Foundation Professor, D.B.A., Mississippi State University.
James A. Henley, jr., UC Foundation Associate Professor, D.B.A., Mississippi State University.
Michael A. Jones, Assistant Professor, Ph.D., University of Alabama

Adjunct Marketing

Sara E. Bowen, M.S., Syracuse University.
Amanda M. Luthy, M.B.A., University of Chicago.
Joe B. Maffett, M.S., Georgia Institute of Technology.
Thomas G. Widmer, M.B.A., The University of Tennessee at Chattanooga.

Library

Valarie Adams, Assistant Professor, M.S.L.S., University of Tennessee, Knoxville.
Laura T. Baker, Assistant Professor, M.L.S., Clark Atlanta University.
W. Michael Bell, Assistant Professor, M.L.S-, George Peabody College for Teachers.
M. Kathryn Breeden, Associate Professor, M.S.L.S., University of Tennessee, Knoxville.
Robert Neal Coulter, Assistant Professor, M.L.S., Indiana University.
Sheila A. Delacroix, Professor, M.L.S., University of Alabama.
Holly Hodges, Assistant Professor, M.A.L.S., University of Maryland, College Park.
Sarla R. Murgai, Associate Professor, Ed.D., University of Tennessee, Knoxville.
William W. Prince, Associate Professor, M.L.S., University of Illinois, Champaign-Urbana.
Marea E. Rankm, Associate Professor, M.A.(L.S.), University of South Florida.
Randolph L. Whitson, Associate Professor; M.L.S., George Peabody College for Teachers.
Sheridan E. Young, Assistant Professor, M.L.I.S., Louisiana State University.

ENDOWED FUNDS

Through the years many people have made generous gifts to establish endowed funds for various purposes. The University recognizes and thanks them by publishing their names here.

Scholarships

See pages 11-18.

Chairs

Walter M. Cline Jr. Chair of Excellence in Rehabilitation Technology: In cooperation with UTC's College of Health and Human Services and the College of Engineering and Computer Science, the Cline Chair of Excellence is designed to make major contributions to the field of rehabilitation technology and to the education of students interested in pursuing careers related to this discipline. The charge to the holder of the chair, established in 1986-87 with a gift from Mr. Cline's widow and children and matching funds from the UC Foundation, is development of programs, curricula, and research in rehabilitation engineering, physical therapy, occupational therapy and rehabilitation nursing.

J. Burton Frierson Chair *of Excellence in Business Leadership:* Designed to give business majors at UTC exposure to exceptional educational opportunities in business leadership, this chair of excellence was funded by the Dixie Yarns Company and matched by state funds in the 1986-87 academic year in honor of J. Burton Frierson. The holder of the chair, a person of national stature in business, government, or technology, helps the University advance its stated goals of becoming a regional leader in business education.

Clarence E. Harris *Chair of Excellence in Business Administration and Distinguished Lecture Series in Entrepreneurship:* The first chair of excellence to be funded by an alumnus, this chair provides the students and faculty of the school, as well as the broader community, a better understanding of the world of business. Distinguished lecturers will be brought to the campus each year in order to engage students, faculty and others in discussions related to trends in innovation, entrepreneurship, corporate strategies, and the global economy. Harris, class of 1964, was the president and chairman of the board of Carriage Industries Inc., Calhoun, Ga., when the chair was established in 1987.

Chair of Excellence in judaic Studies: Offering a focus for special examination of the impact of Judaic influence on Western civilization and history, this chair was established in 1986 by a special Committee for the Judaic Chair of Excellence and from private community support. Enriching the curriculum of the Department of Philosophy and Religion, the chair is also a major asset to the cultural life of the community and the holder of the chair serves as a key resource for the integration of Judaic studies in appropriate contexts throughout the University and in the community at large.

Lyndhurst Foundation Chair of Excellence in Arts Education: Funded in 1988 as a complement to the Southeast Center for Arts Education established on the UTC campus with grants from the Getty Foundation, the Gherkin Foundation, and Lyndhurst, this chair is designed to bring to the University and the southeast region of Tennessee a nationally recognized expert in discipline-based arts education (DBAE). The chair holder will teach art education courses to undergraduate and graduate students, conduct research, serve as an advocate for improved arts education, and oversee the center's programs, including three constituent institutes for teachers in the visual arts, theatre, and music.

O.D. McKee *Chair of Excellence in Dyslexia:* Established in 1998 in honor of the late O.D. McKee, founder of McKee Foods Corporation, makers of Little Debbie snack cakes. A professorship to provide leadership and direction in the research, teaching, and outreach programs for the study of dyslexia and exceptional instruction. Funded by a $500,000 endowment from Mr. McKee and an equal matching grant from the State of Tennessee.

Memorial *Hospital Chair of Nursing Excellence:* Established in 1996 by Memorial Hospital to advance undergraduate and graduate teaching, scholarly research and public service in the area of nursing.

Burkett Miller Chair of Excellence in Management and Technology: A cross-disciplinary chair of excellence that bridges the resources between the School of Business Administration and the College of Engineering and Computer Science. Funded in 1977 by the Tonya Memorial Foundation of Chattanooga, the holder of this chair assists the University and the Chattanooga community in understanding the importance of technology; identifying and nurturing the development of technology; and assisting with the transfer of that technology to the marketplace in ways which foster economic development.

Scott L. Probascojr. Chair of Free Enterprise: Established in 1976 by Burkett Miller, a leading Chattanooga attorney and philanthropist, in honor of a longtime friend, well-respected Chattanooga citizen, and trustee of the University of Tennessee and the UC Foundation, for a distinguished professorship relating to the free enterprise system.

Provident *Life and Accident Insurance Company Chair of Excellence in Applied Mathematics:* This chair of excellence, funded in 1986 by joint gifts from Provident and the University of Chattanooga Foundation, brings to the University and the community a heightened sense of the significance, utility, and relevance of mathematics and its applications. The holder of this chair functions not only as a scholar, teacher, and researcher, but also as a valuable resource and vigorous advocate for mathematics in the schools and community.

SunTrust Bank Chair of Excellence in the Humanities: Established by it's predecessor, American National Bank and Trust Company, this chair, administered through the College of Arts and Sciences.has as its purpose presenting the best that has been and is now being thought in the humanities. This revolving appointment brings to the community visiting professors of national and international stature. The humanities chair established by American National Bank and Trust Company in 1986 helps meet UTC's commitment as a cultural center for the region.

George R. West jr. Chair of Excellence in Communication and Public Affairs: Funded by the Westend Foundation in 1986 in honor of its founder, George R. West Jr., this chair of excellence is designed to assist UTC in educating students for

responsible and effective communications in the realm of public affairs. Students pursuing careers in business, education, communications, political science, and other disciplines benefit from this chair which emphasizes critical analysis and presenting, particularly by the written word, the issues of public affairs in a truthful, effective and responsible fashion.

Professorships

Alumni *Distinguished Service Professorships:* Awarded to outstanding faculty members of each of the four campuses of The University of Tennessee by the University of Tennessee National Alumni Association.

C.C. *Bond Minority Professorship in Education:* Established in 1987 by friends and colleagues of Dr. Claude C. Bond, distinguished educator in the Chattanooga public schools. The professorship is intended to attract an outstanding minority leader to the College of Education and Applied Professional Studies at UTC.

J.C. Bradford Portfolio Management Professorship: Established in 1996 by the J.C. Bradford & Company Foundation to provide students with guidance in security analysis and portfolio management. The fund provides resources for faculty and student development for the professor who directs the Portfolio Management Seminar in the Department of Accounting and Finance in the School of Business Administration.

Chattanooga Manufacturer's Association Professorship in Engineer' ing: Established in 1980 to provide support for the College of Engineering and Computer Science and enable the University to reward a member of the engineering faculty for excellence in teaching, public service, and research.

Kay KittrellChitty Professorship in Nursing: Established in 1996 by Memorial Hospital in honor of Dr. Chitty, former director of UTC's School of Nursing and former chair of Memorial's board of directors, the appointee holds a joint appointment with the University and the hospital in the area of family nurse practioner..

George M. Clark Professorship in Management Policy: Established in 1983 by the Clark Foundation in memory of George M. Clark, longtime Chattanoogan and chairman of Pioneer Bank until his death in 1979.

George C. Connor Pro/essorship *in American Literature:* Named for Guerry Professor of English emeritus George C. Connor, this professorship was established in 1985 by colleagues, former students, and friends in honor of his 26 years of service.

Robert M. *Davenport Professorship in Biology:* Established in 1997 by the children of Robert M. Davenport: Eleanor Howell Davenport, Adelaide Davenport Bratcher, Robert M. Davenport, Jr., and S. Elliot Davenport, and other friends and colleagues, as a tribute to Davenport, an executive with the Krystal Co. and founder of the Central Park restaurant chain. Davenport, who died in 1994, was committed to both education and the environment through his understanding of the earth's fragile environment and devotion to property at Lula Lake on Lookout Mountain. The appointee is a faculty member of the Department of Biological and Environmental Sciences.

Joseph F. *Decosimo* Centennial *Professorship in* Accounting: Established in 1977 by Mr. and Mrs. Joseph F. Decosimo, civic and business leaders, to support the program in accounting and upgraded during the Centennial campaign of 1986.

W.Max Finle} Centennial *Professorship in Business* Administration: Established by friends and family of alumnus W. Max Finley, class of 1931, this fund promotes faculty research which involves students.

First Tennessee Bank Distinguished Professorships in Business: Established in 1996 as part of a 21st Century Campaign gift to the University of Tennessee by First Tennessee National Corporation of which First Tennessee Bank is a subsidiary, this professorship for the Chattanooga campus is awarded to a member of the faculty with expertise in the various areas of banking and finance.

Benjamin H. *Gross Professorship in Chemistry:* Awarded to a member of the faculty of the Department of Chemistry who has shown outstanding accomplishments in teaching, research, and civic involvement. Established in 1998, the endowment honors Dr. Benjamin Gross, who served as head of the UTC chemistry department from 1964 through 1990. Dr. Gross, a nationally known chemist, was an outstanding professor of general and organic chemistry.

Nita T. and Irvine W. Grote *Professorships* in Chemistry: Established in 1986 to honor outstanding teaching through a generous gift from the estate of Dr. and Mrs. Grote. An inventor of note, Grote taught at UC for 38 years.

Alexander and Charlotte Patten Guerry Professorships: Established by anonymous gifts in 1959 and 1961 in memory of the University's esteemed seventh president and in honor of his dedicated wife, to recognize a select group of outstanding professors.

Henry Hart Pro/essorsfu'p *in Business Administration:* Established in 1978 by R. Henry Hart, a civic and business leader, to provide faculty support for the University's School of Business Administration.

Brice L. Holland Centennial *Professorship* in Taxation: Established in 1989 by Brice L. Holland, distinguished alumnus, benefactor and community leader, desiring to enhance the teaching and level of expertise offered in the field of taxation in the School of Business Administration.

Ruth Kiser *Hyder Endowed Professorship of Educational Leadership:* Established in 1985 by Dr. Charles Hyder, Guerry Professor Emeritus of Education, in honor of his wife, a distinguished teacher in the elementary schools of Chattanooga. This professorship recognizes leadership in the preparation of teachers in the public school system grades K-12.

Mary B. *Jackson Professorship of Nursing:* Established in 1989 to support and maintain a high caliber nursing faculty by friends and colleagues of Mrs. Jackson, who came to UTC in 1973 and was charged with organizing the nursing program.

H. Clay *Evans Johnson Professor of Nursing:* Established in 1989 to emphasize the training of talent and upholding the ethical standards of nursing by Johnson, former chair of the Board of the UC Foundation. He served as president of the Hamilton County Memorial Hospital Association.

Summerfield Key Johnston Centennial Scholars Endowment for Junior Faculty Development: Established in 1987 as a Centennial gift by local Coca-Cola executive Summerfield Johnston Jr., this endowment provides support for new faculty members in the School of Business Administration who have demonstrated potential for making substantial contributions to teaching and research.

Kennedy Distinguished Teaching Professorship in English *Literature:* Established in 1995 by The Kennedy Foundation for an outstanding professor who teaches English literature and is involved in scholarly research and public service.

Alan S. *Lorberbaum Professorship in Marketing:* Established in 1978 by Alan S. Lorberbaum, a business leader and carpet executive in Dalton, Ga., to provide faculty support for the marketing program in the School of Business Administration.

Robert L. MackUan Centennial Professorship in Insurance: Robert L. Maclellan, Provident Life and Accident Insurance Company insurance executive and UC Foundation trustee, was a major benefactor of the University. This professorship was established in 1986 by his widow to provide expertise and support for the Chattanooga insurance industry by teaching the principles and practices of insurance.

LeRoy A. Martin *Distinguished Professorship of Religious Studies:* Supported by the UC Foundation in memory of the last ordained Methodist minister to serve as president of UC, 1959-66, and John H. Race Professor of Classics until his death in 1971. This professorship was established to ensure ties with the University's Methodist heritage.

Luther Masingill Professorship in Communication: Established in 1990 by friends and associates of the local celebrity in honor of his 50 years in broadcasting. The professorship is designed to emphasize the training of talent and to uphold the high standards of communication set by Masingill.

Frank McDonald *Professorship in Communication or Management:* Established in 1998 with ongoing gifts in honor of long-time *Chattanooga Free Press* President Frank McDonald by friends. The professorship goes either to a faculty member in the University communication or management departments.

George Lester Nation Centennial Professorship of Entrepreneur ship: Established in 1986 by his son Ray Nation, this professor-. ship honors the late founder of Nation Hosiery Mills. Both iri the classroom and the community, the holder of the professorship is charged with emphasizing entrepreneurship and economic development.

Patricia Draper Obear Distinguished Teaching Professorship: Established with memorial gifts given by friends and family in honor of the wife of the 13th chief executive officer of UTC, Chancellor Frederick W. Obear. Mrs. Obear, who died in 1993, was a community volunteer who had a particular interest in social service and early childhood education, the areas given preference in the awarding of this professorship.

Adolph 5. *Ochs Centennial Chair of Government:* Established in 1925 by Ochs, owner and publisher of *The Chattanooga Times* and *The New York Times,* friend of the University, father and grandfather of trustees. It was upgraded to a Centennial title in 1986 by members of the family.

Katharine Pryor Professorship of English: Established in 1991 by Rodney L. Grandy and other friends and former students in honor of Katharine Pryor, a long-time teacher of English and assistant principal at Chattanooga High School, and a 1936 graduate of the University of Chattanooga.

Dalton Roberts Professorship in Public Administration: Established by friends and colleagues in 1995 to honor former Hamilton County Executive Roberts for his contributions to public service, this award goes to faculty members whose major field of study and teaching is public administration. Roberts held the position of county executive from the time it was established in 1978 until his retirement in 1994.

Mildred Routt *Outstanding Teaching Professorship:* Established in 1993 through a bequest from the educator for whom it is named to recognize professors who represent the qualities and high standards of good teaching both at the University and in the community. Recommendations for the award are made by the Provost and approved by the Chancellor.

Salem Carpets *Professorship in Industrial/Organizational Psychology:* Established in 1989 by Salem Carpets Inc., for a faculty member in psychology with half the endowment earnings to provide a stipend and half to support research in the field.

John *Stagmaier Chair of Economics and Business Administration:* Established in 1956 by the Tennessee Paper Mills in memory of its founder, respected and admired citizen of Chattanooga and University trustee from 1932 until his death in 1943.

UC *Foundation Professorships:* Established in 1976 to recognize outstanding younger faculty and to provide an incentive for their remaining at UTC.

Sharon Vanderbilt Professorship in Physical Therapy: Established in 1995 by Douglas L. Vanderbilt, M.D. in honor of his wife Sharon Vanderbilt, a pediatric physical therapist who was an advocate for the development of the UTC Physical Therapy Program, for an outstanding professor who teaches physical therapy and is involved in scholarly research and public service.

Arthur G. *Vieth Professorship in Business Finance:* Established in 1983 by former students and friends in memory of the former holder of the John Stagmaier Chair of Economics and Business Administration, a greatly admired teacher and public-minded citizen.

Marvin Edward *White Professorship in* Business *Administration:* Established in 1978 by Selox Inc. to provide faculty support for the University's program in business administration and to honor the company's founder.

Robert Lake *Wilson Professorship:* Established in 1987 by a former student in honor of geology professor Dr. Robert Lake Wilson for demonstrating a personal interest in the welfare of his students. It is intended to recognize and reward faculty who go out of their way to provide encouragement and support.

Student Loan Funds

William E. and Mary F. Ansbach Memorial Student Loan Fund: Established in 1968 by Raymond J. Ansbach, Chattanooga merchant, in memory of his parents.

Dr. H. *Eugene Hames* Student *Loan Fund:* Established in 1969 with a gift from the Hartsell, Ala., physician who studies his premedicine at UC from 1954-1956 and his earned M.D. from UT in 1960.

Lewis B. Headrick Memorial Student Loan Fund: Established in 1966 by family, friends, and colleagues of Headrick, class of 1926, research physicist with the Radio Corporation of America for 34 years.

Ethel *Chapin Morgan Student Loan Fund:* Established by a bequest from the UC alumna, B.S. degree in 1925, at the time of her death in 1973 for students in chemistry or history.

Frank L. Underwood Memorial Student Loan Fund: Established in 1967 with a bequest from Mrs. Underwood in memory of her husband, vice-president of Chattanooga's Hamilton National Bank and UC trustee until his death in 1942.

Additional Funds

Alpha/Ann Tinnon Memorial Award: Established in 1997 as a permanent endowment by the Alpha Society, UTC's highest scholastic honor society, in honor of its former president, the late Ann Tinnon, who was the director of financial aid. The award is based on a vote of the membership to a graduating senior based on the strength of his or her undergraduate degree program and prospective graduate program.

Dr. *North Callahan* Honors Essay Prize: Established in 1984 by Professor Emeritus of History, New York University, author, and UTC Distinguished Alumnus. Prize awarded to a UTC student for the best honors essay, as determined by an honors committee, based on UTC library research.

Morrow Chamberlain Memorial *Library Fund:* Established in 1971 by a bequest from Mrs. Chamberlain in memory of her husband, Chattanooga business and civic leader, chairman of the UC Board of Trustees from 1932 to 1958, member from 1919 until his death in 1959.

Bess *Taylor Cofer Endowed Professional* Health Care *Student Ad' vocacy Fund:* Established in 1985 by Dr. Robert H. and Mary A. Cofer, this fund is used to promote the highest level of guidance and preparation to students pursuing careers in nursing, dentistry, medicine, cytotechnology, dental hygiene, medical technology, pharmacy, physical therapy, or veterinary medicine.

George Ayers Cress Gallery *of Art Endowment* Fund: Established in 1992 by friends, former students, and colleagues in honor of George Cress, artist-in-residence and Guerry Professor who taught at UTC for 40 years, on the occasion of the naming of the University gallery in the Fine Arts Center for Cress. The funds are to help defray the cost of operating and staffing the gallery and in support of its exhibitions.

Paul *W. Curtis Jr. Awards:* Endowed in 1948 for outstanding students in engineering by Mr. and Mrs. Paul W. Curtis in memory of their son, class of 1933, who died in WW II.

Irvine *W. Grote Fund for the Department of Chemistry:* Established in 1976 by a bequest from the estate of Dr. Irvine W. Grote, Guerry professor of chemistry, to be used for the benefit of the chemistry department.

Hartung *Fund for Nursing Education:* Established in 1969 by Dr. and Mrs. Carl A. Hartung, UC graduates of 1929 and 1931 respectively, to support the nursing program.

John B. Haskins *Jr.* Memorial Laboratory: Science laboratory equipped and its upkeep endowed in 1948 by gifts from Dr. John B. Haskins in memory of his son, a UC student who died in 1944 after a long illness.

Hinds Memorial Book Fund: Established in 1921 by Mrs. Kate Hinds Steele and Mrs. Bashie Martin in memory of their father, J.I.D. Hinds, for the purchase of chemistry books.

Martha Chase and Andrew *David Holt Library* Endowment Fund: Established in 1970 by the Hamilton County chapter of the UTNAA and other friends in honor of the retiring UT president and his wife, for the purchase of library books.

Mary B. *Jackson Award Endowment:* Established in 1977, with endowment funded in 1984, to honor outstanding senior nursing student selected by peers.

Dr. Joseph A. Jackson Endowment for Library Faculty Development: Established in 1988, by Mary B. and Joseph A. Jackson in the name of Dr. Jackson, professor and dean of libraries, to encourage, promote, and recognize achievement in library faculty of the T. Cartter and Margaret Rawlings Lupton Library..

John *W. Jayne* Memorial Mathematics Award: Established in 1994 by family and colleagues in memory of Dr. John W. Jayne, member of the Department of Mathematics for 22 years who died in 1993. The award is given each year to an outstanding mathematics student.

H. Clay *Evans Johnson* Nursing Endowment Fund: Established in 1992 by H. Clay Evans Johnson, past chair of the University of Chattanooga Foundation, also past chair and member of the UT Development Council. A retired insurance executive and community leader, Johnson also established, in 1990, the H. Clay Evans Johnson Professorship in Nursing. The income from the endowment provides funds for student awards for academic achievement, clinical excellence and /or community service. It also helps fund the clinical renewal program for nursing faculty.

Summerfield Johnston Endowment *for the Restoration of the American Chestnut:* Established in 1997 by Summerfield K. Johnston Jr. in honor of his father and to provide income to the holder of the Robert M. Davenport Professorship of Biology for research, teaching, scholarship, and service which supports the objective of restoring the American chestnut tree to successful survival in its natural state.

Keese *Lecture* Series: Established in 1962, endowed in 1964 by Will S. Keese Jr,. in memory of his mother, Lucy Beall Keese, who died in 1959, and in honor of his father, the late William S. Keese, longtime directors of the Bonny Oaks School, to bring an outstanding speaker to the campus each year.

Gene H. Kistler *Golf Endowment:* Established in 1994 through an estate gift by the late Dr. Kistler, a Chattanooga physician and general surgeon and a golf enthusiast who competed avidly for more than 70 years after learning the game when he was 16. The fund is intended to support the men's intercollegiate golf program.

Lukens/Hatch Awards Endowment: Established in 1994 by Dr. Terrance Carney, UTC professor of engineering, and his wife Marian, alumna of the Class of 1977, in honor of their respective parents, Dr. Frances D.W. Lukens, Mrs. Carney's father, and Harriet Hatch Carney, Carney's mother. The Lukens Award is given to the rising junior in the College of Engineering and Computer Science with the highest grade point average. The Hatch Award goes to the adult part-time student in the School of Business Administration with at least 60 hours who has the highest grade point average.

O.D. McKee *Center for Dyslexic Studies Endowment:* Established in 1994 by Ellsworth McKee, president of McKee Foods Inc., in honor of his father, to provide educational opportunities to dyslexic students enrolled in the College Access Program.

Ellis *K. Meacham* Annual Writers *Workshop and Creative Writing Professorship:* Established in 1985 by Jean Austin Meacham, former UTC professor and dean in honor of her husband, Judge Ellis K. Meacham, a distinguished jurist, author and UC alumnus. The income from the endowment provides a stipend each year for the faculty member responsible for that year's Meacham Writers Workshop.

T. Cartter and *Margaret Rawlings Lupton Library* Endowment Fund: Established with an anonymous gift, this fund provides for the continued acquisition of materials to enhance the holdings of the library.

Captain Daphne Marjorie Painter Memorial Art *Education* Endowment Fund: Endowed in 1984 by Mrs. Marjorie Stanford Painter in memory of her daughter to send teachers from under-served Southeast school districts to the Southeast Institute for Education in the Visual Arts at UTC.

Cranston B. Pearce Center *for Applied Engineering and Technology:* Complementing UTC's Center of Excellence for Computer Applications, the Pearce Center in the College of Engineering and Computer Science was funded by the Tonya Foundation in 1984 in memory of its president. The purpose of the center is to move the University to the forefront of instruction, research, and service in the area of computer and information sciences. The center also plays a role in the economic development of Chattanooga and the Southeastern region.

Seth C. Smith Management Award: Established in 1975 by the Society for the Advancement of Management in memory of its distinguished business leader, awarded annually to an outstanding student majoring in management.

J. Gilbert *Stein Fellowship Endowment Fund:* Established in 1997 by J. Gilbert Stein to provide graduate assistantships in support of the Scott L. Probasco Chair of Free Enterprise. A businessman, Stein served as an adjunct scholar with the Probasco Chair for over 16 years. The student receiving this honor will hold the title of "J. Gilbert Stein Fellow."

SunTrust Bank Chair of Excellence in Humanities Program Support Endowment: Established in 1997 by SunTrust as its 21st Century Campaign gift to the University. Proceeds provide program support to the holder of the SunTrust Bank Chair of Excellence in Humanities.

Carl A. *Swaffordjr. Endowment Fund:* Endowed in 1984 by Carl A. Swafford Sr. in honor of his son for the purchase of equipment and supplies for biology and chemistry.

Terrell *Louise Tatum Memorial Fund:* Established in 1968 by the University in memory of the Guerry professor of Spanish who served her alma mater for 43 years, for the purchase of books and teaching materials for the modern languages.

Terrell *Louise Tatum Spanish Award:* Endowed in 1964 by an anonymous donor to honor the Guerry professor of Spanish, to the oustanding senior Spanish major.

Edgar B. Tolson Memorial Book Fund: Established in 1942 from Tolson's estate, authorized by Wilfred O. Stout Sr., executor, for the purchase of history and philosophy books.

UTC Children's Center *Scholarship:* Established in 1988 by a group of donors including the late Patricia Obear to provide tuition assistance for the UTC Children's Center to parents who demonstrate financial need.

James G. Ware Mathematics Education Award: Established in 1994 by Dr. James G. Ware, faculty member of the Department of Mathematics for 30 years, 22 of which were as head of the department, upon the occasion of his retirement. The award goes to the outstanding student planning to teach mathematics at the high school level.

William H. Wheeler Center *for Odor Research:* The center is a cross-disciplinary laboratory established by a gift from the Wheeler estate. The center supports the study of the objective relationships between various substances and their effect upon olfaction.

Earl W. Winger *Broadcast Center:* Established in 1987 by the children of Earl W. Winger, a distinguished businessman, civic leader, lifetime trustee of the UC Foundation, and broadcast pioneer, for the renovation and acquisition of broadcast production equipment for WUTC. The children include Robert Allan Winger, Charles E. Winger, Betty V. Hunt, and Virginia A. McAllester.

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Glossary of Academic Terms

Adviser—a faculty member who advises the student about his or her academic program.

Audit—to take a course without credit.

Behavioral and social science courses— certain courses in anthropology, economics, geography, human services, political science, psychology, and sociology.

Classification—level of progress toward the bachelor's degree. An undergraduate student is classified as a freshman, sophomore, junior, or senior depending on the number of semester hours completed.

College—an organizational unit of the University, embracing several departments, divisions, or schools. UTC has four colleges, the College of Arts and Sciences, the College of Education and Applied Professional Studies, the College of Engineering and Computer Science, and the College of Health and Human Services.

Concentration—a particular emphasis within a major area.

Corequisite—a course which must be taken at the same time as another course.

Course—a specific subject of study.

Credit—the numerical value awarded upon completion of specified studies, usually based on class meeting length and frequency. At UTC credit is stated in semester hours.

Curriculum—the whole body of courses offered by the University or by one of its colleges, schools, divisions, or departments.

Department—an organizational unit representing a discipline or related disciplines, such as the Department of Foreign Languages and Literatures.

Discipline—an area of study representing a branch of knowledge, such as mathematics.

Division—an organizational unit which may include one or more programs, as in Continuing Education or Student Support Services.

Elective—a course not specifically required.

Fine arts courses—certain courses in art, theatre, and music.

General education courses—courses designed to help the students discover the relatedness of knowledge and acquire a core of information, attitudes, and capabilities basic to their formal college education and their continuing education throughout life.

Graduate student-—a student who has received a bachelor's degree and has met all criteria for admission to the Graduate Division.

Humanities courses—certain courses in classics, English, history, modern languages, and philosophy and religion.

Interdisciplinary *courses*—courses which deal with two or more academic subjects.

Major—the subject or subjects on which a student places principal academic emphasis.

Non-Western course—a course which deals with some aspect of a civilization outside of Western civilization, such as Asian, Latin American, etc.

Orientation—activities and programs designed to help the new student become acquainted with the University.

Academic record—the academic history of the student which lists all of a student's courses, semester hours credit, grades, quality points, status, and certain personal information.

Post'baccalaureate student—a student who has received a bachelor's degree and is taking additional undergraduate courses.

Prerequisite—a requirement which must be met before a particular course can be taken.

Registration load—the total semester hours for which a student is registered in any semester or term.

Schedule of classes—a listing of all courses offered by the University during one semester or summer session, showing fees, instructors, and time and place of meeting.

School—an organizational unit composed of related disciplines. At UTC there are six schools: the School of Applied Professional Studies, the School of Business Administration, the School of Educational Leadership, the School of Nursing, the School of Rehabilitation Professions, and the School of Social and Community Services.

Semester—half an academic year or 15-16 weeks. Some schools operate on a quarter system, which divides the academic year into thirds. UTC uses the semester system.

^*Semester hour*—the unit of credit used by schools on the semester plan.