Bulletin

The University of
Tennessee
at Chattanooga

Catalog Issue

Record for 1977-78

Announcements 1978-79
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:

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The University of Tennessee at Chattanooga does not discriminate on the basis of sex or on the basis of 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.

This policy extends to employment, admission, retention, and treatment by the University. Inquiries concerning Title IX or the Rehabilitation Act should be directed to Dr. Charles M. Temple. Charges of violation of the above policy should also be directed to Dr. Charles M. Temple, Vice Chancellor for Administration.

The University also does not discriminate on the basis of race, color, religion or national origin.

This catalog is published by The University of Tennessee at Chattanooga, a primary campus of The University of Tennessee.
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Academic Calendar
1978-1979

**Fall Semester 1978**
Registration and fee collection (See note below)
August 28 (Monday)
August 28-September 2
(Monday-Saturday)
September 3 (Sunday)
September 5 (Tuesday)
September 5-8
(Tuesday-Friday)
September 11 (Monday)
October 25 (Wednesday)
November 22 (Wednesday)
November 27 (Monday)
December 8 (Friday)
December 10 (Sunday)
December 11-17
(Monday-Sunday)

Classes begin
Late registration
Labor Day holiday begins at 5:00 p.m.
Classes Resume
Registration and addition of classes with approval of instructor only
Last day to drop a course before "W" (withdrawal) is recorded and to change from "credit" to "audit"
Last day for official withdrawal from any class with a "W"
Thanksgiving holiday begins at 5:00 p.m.
Classes resume
Reading day
Last day of classes
Examinations

**Spring Semester 1979**
Registration and fee collection (See note below)
January 3 (Wednesday)
January 3-9
(Wednesday-Tuesday)
January 10-16
(Wednesday-Tuesday)
January 16 (Tuesday)
March 4 (Sunday)
March 12 (Monday)
March 13 (Tuesday)
April 12 (Thursday)
April 16 (Monday)
April 20 (Friday)
April 22 (Sunday)
April 23 (Monday)
April 24-30
(Tuesday-Monday)
May 5 (Saturday)

Classes begin
Late registration
Registration and addition of classes with approval of instructor only
Last day to drop a course before a "W" (withdrawal) is recorded and to change from "credit" to "audit"
Spring vacation begins at 5:00 p.m.
Classes resume
Last day for official withdrawal from any class with a "W"
Holiday begins at 11:00 p.m.
Classes resume
Reading day
Last day of classes
Reading day
Examinations
Commencement

**Summer Session 1979**
Registration and fee collection (See note below)
First Second Third First Second
5-week 5-week 5-week 7/2-week 7/2-week Term Term
May 8 June 11 July 16 May 8 June 27
May 10 June 13 July 18 May 14 July 5
May 10 June 13 July 18 May 14 July 5
May 24 June 27 August 1 June 5 July 26
June 8 July 4 August 16 August 20 August 27
June 25-26 July 4 August 15-16 August 20 August 27
Classes begin
Last day to register
Last day to drop a course before a "W" is recorded and to change from "credit" to "audit"
Last day to withdraw officially from any class with a "W"
Holiday
Final examinations
Commencement, 8:00 p.m.
Classes for fall semester 1979

NOTE: UTC has multiple registration periods. Registration and fee collection dates and times for each of the semesters and summer sessions may be found in the schedule of classes.
**Advisor**—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, Education, Geography, History, 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 and quality points earned.

**College**—an organizational unit of the University, embracing several departments, divisions, and schools. At UTC there are two colleges, the College of Arts and Sciences and the College of Professional Studies.

**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 to 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 Nursing or the Department of Foreign Languages.

**Discipline**—an area of study representing a branch of knowledge, such as Mathematics.

**Division**—an organizational unit which may include one program, as in Engineering, or several, as in Human Services.

**Elective**—a course not specifically required.

**Fine Arts Courses**—certain courses in Art, Theatre and Speech 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 subject areas on which a student chooses to place 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.

**Permanent Record**—the card on which the Director of Records 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**—the courses for which a student is enrolled during a semester or summer term.

**Schedule of Classes**—a listing of all courses offered by the University during one semester or summer session, showing days, hours and place of meeting, instructors and fees.

**School**—an organizational unit composed of related disciplines. At UTC there are two schools in the College of Professional Studies; the School of Business and the School of Education. There is also a School of Engineering.

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.

Special Credit-credit awarded for work accomplished by means other than through University classes.

Transcript-an official copy of a student's permanent academic record.

Undergraduate-a college student who has not received a bachelor's degree.
The Administration

Dr. James E. Drinnon, Jr.
Chancellor, UTC
The University of Tennessee

Trustees

Legal Title: The University of Tennessee
His Excellency, The Governor of Tennessee
The Commissioner of Education
The Commissioner of Agriculture
The President of the University
The Executive Director, Tennessee Higher Education Commission

From Congressional Districts

<table>
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<tr>
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<th>Service Began</th>
<th>Term Expires</th>
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<td>First Buford Goldstein, Elizabethton</td>
<td>1975</td>
<td>June 1, 1984</td>
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<tr>
<td>Second A. B. Long, Jr., Knoxville</td>
<td>1977</td>
<td>June 1, 1986</td>
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<tr>
<td>Third Leonard Raulston, Lookout Mountain</td>
<td>1957</td>
<td>July 1, 1979</td>
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<tr>
<td>Fourth William M. Johnson, Sparta</td>
<td>1975</td>
<td>June 1, 1987</td>
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<td>Fifth Amon Carter Evans, Nashville</td>
<td>1953</td>
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<td>Sixth Clyde M. York, Columbia</td>
<td>1951</td>
<td>July 1, 1981</td>
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<tr>
<td>Seventh Ben Douglass, Lexington</td>
<td>1956</td>
<td>July 1, 1979</td>
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<td>Eighth Tom Elam, Union City</td>
<td>1975</td>
<td>June 1, 1986</td>
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<tr>
<td>Ninth R. Lee Winchester, Memphis</td>
<td>1975</td>
<td>June 1, 1984</td>
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From Anderson, Bedford, Coffee, Franklin, Lincoln, Moore, and Warren Counties

<table>
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<th>Term Expires</th>
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<td>June 1, 1979</td>
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<td>From Davidson County Elaine A. McReynolds</td>
<td>1975</td>
<td>June 1, 1984</td>
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<tr>
<td>From Hamilton County Paul J. Kinser</td>
<td>1969</td>
<td>June 1, 1987</td>
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<tr>
<td>From Knox County Ann Baker Furrow</td>
<td>1971</td>
<td>June 1, 1980</td>
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<td>From Shelby County Frank P. Bowyer</td>
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<td>1970</td>
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<td>Student Member James M. Powers, Jr.</td>
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Tom Elam, Vice Chairman
Edward J. Boling, President
Brodie Baynes, Treasurer
Beauchamp E. Brogan, Secretary
Carol L. Bailey, Assistant Secretary
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Administration and Service 1978-1979

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The University of Tennessee at Chattanooga

Administration
1978-1979

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    Vice Chancellor For Academic Affairs

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    Vice Chancellor for Administration

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    Dean of the College of Professional Studies; Director of Graduate Studies

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    Dean of the School of Engineering

Ray P. Fox, B.S., M.Ed., Ed.D.
    Dean of Admissions and Records

Joel Cunningham, B.A., M.A., Ph.D.
    Dean of Continuing Education and Public Service

Charles M. Renneisen, B.S., M.S., Ed.D.
    Dean of Students

Ian T. Sturrock, B.S., M.A., Ph.D.
    Executive Director of Development

Joseph A. Jackson, A.B., M.A.
    Director of Libraries
The University of Chattanooga Foundation

Board of Trustees

Formerly the Board of Trustees for the University of Chattanooga, this Foundation presently manages the University's private endowment. The Foundation is a unique institution dedicated to the enhancement of the quality of excellence at The University of Tennessee at Chattanooga.

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<td>Llewellyn Boyd</td>
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<td>Robert H. Caldwell, Sr.</td>
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<td>Edward Y. Chapin, III</td>
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<td>H. Clay Evans Johnson</td>
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<td>W. S. Keese, Jr.</td>
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<td>Thomas A. Lupton, Jr.</td>
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<td>Scott L. Probasco, Jr.</td>
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<td>John C. Stophel</td>
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<td>Mrs. Jean H. Troy</td>
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<td>John Vorder Bruegge</td>
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<td>Raymond B. Witt, Jr.</td>
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<td>Mrs. Lynn H. Woodworth</td>
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<td>Colon W. York</td>
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<tr>
<td>Herman E. Welch '50</td>
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<td>Thomas T. Rowland '60</td>
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<td>Aubrey L. (Bo) Dyer '51</td>
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<td>Carl A. Hartung</td>
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<td>David A. Lockmiller</td>
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<td>Earl W. Winger</td>
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<td>Gordon P. Street, Sr.</td>
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The University

Founders Hall
Campus of UTC
**History**

Near the end of the 19th century, Chattanooga was rapidly becoming the industrial center it is today. Its citizens were actively engaged in coal production, iron manufacturing, the lumber trade, and rail construction. These industrial pioneers knew the value of education and had a deep respect for learning. 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 to become a major campus of The University of Tennessee, one of the oldest land-grant universities in the nation. Pledged to the service of the entire state, The University of Tennessee has emerged as a state-wide system consisting of five 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.

Retaining the disciplines of traditional liberal education, the University has expanded its degree programs in professional studies and engineering and greatly increased its initiatives in continuing education and public service.

The University's wide diversity of degree programs has attracted a current enrollment of more than 6600 students who represent 57 Tennessee counties, 34 states and 18 foreign countries.

The University has been an accredited member of the Southern Association of Colleges and Schools since 1910. It is also accredited by the National Council for Accreditation of Teacher Education and the National Association of Schools of Music and is approved by the American Association of University Women. 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, Association of Urban Universities, American Association of State Colleges and Universities, National University Extension Association, and the Tennessee College Association.

In 1973 Dr. James E. Drinnon, Jr. was appointed Chancellor of The University of Tennessee at Chattanooga.

**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 which support the arts through dramatic productions, concerts, and art exhibits. Seven city parks, seven public golf courses and a 35,400 acre lake provide a variety of recreational activities.

With a population of about 170,046 in a metropolitan area of 394,600 Chattanooga is easily accessible from all parts of the nation by air and bus.
A snowy evening
UTC campus
Student Life

Administration-Vne-Dean of Students is responsible for all facets of student life on the campus outside the classroom. He is aided by assistants who, with him, administratively coordinate those co-curricular activities which enrich the student's collegiate experience.

Student Government Association-The student's single campus-wide representative organization is the SGA, which works to protect student rights, promote progressive change in University policies and provide services for students. Meeting weekly, the Senate acts as the legislative arm of the students, with its elected membership constantly concerned with any and all actions of the University which affect the lives of students. Entertainment and educational programs are also provided for the students by the SGA.

The Student Handbook-distributed at the beginning of each academic year, contains the constitution of 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.

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, the Honor Court and its procedures are detailed in the Student Handbook.

The University Center Governing Board-The University Center Governing Board in its advisory role to the center staff, assists in the development of a broad range of activities for the campus. It is the intention of the staff and the board to serve all elements of the campus community and, further, to aid those newly developing or less popular activities which might otherwise be neglected. There are many opportunities for students to serve on the board. Programs are operated by various project committees and approximately sixty students are required to staff all committee positions.

Students can make their greatest contribution to center programs if they begin their involvement with a committee when they are freshmen. Interviews are held early each fall to assist interested students to find a committee assignment in which they can aid the development of campus life. In addition, new workers for the center committees are needed from time to time during the remainder of the year. Students can contact the board for an interview by leaving a message addressed to the president of the board, at the Information Desk.

Student Services

Orientation, Testing and Advising-The director of advisement and orientation in cooperation with the Student Affairs Office, the Registrar, the Admissions Office and the Counseling Center provides a program of orientation for all new freshmen and transfers before the formal opening of the fall semester.

Orientation includes testing by the Counseling Center, course advising and selection and an introduction to the campus, through tours and discussion groups. The director of advisement and orientation is assisted in planning and coordinating new student orientation by a group of upperclass student leaders who compose the Student Orientation Board.

In the first year the student who has not yet chosen a major will be assisted academically by a faculty member who will serve as the student’s advisor. The advisor will discuss with the student academic goals and assist in scheduling classes consonant with the student’s purpose. All students who have declared a major are advised by a professor in their major field of study. Results of aptitude and achievement tests as well as copies of the student’s records are made available to the advisors for use in counseling.

Soofcstore-Located in the Guerry Center, the University bookstore is a service-oriented function of the University. Textbooks, both used and new, are supplied for all courses. Paperbacks, art and engineering supplies, campus wear and health and beauty aids are among the many kinds of merchandise stocked by the store. The bookstore also has a Lobby Shop conveniently located in the new University Center. Students may purchase gift items, magazines, greeting cards, school supplies and many other items at this location. The bookstore provides a check cashing service and also honors Master Charge and BankAmericard.

Counseling-The services of the counseling center are available to all students and their dependents without charge. Professionally trained staff members provide assistance in resolving personal, emotional, and marital problems, and in helping students explore curricular and career alternatives. The counseling center also sponsors developmental and educational programs such as assertion training, values clarification, career exploration, human sexuality, interpersonal communication skills, and many others. All services are confidential.

Food Service Facilities-The University-operated food services provide meals and snacks in the University Center cafeteria and grill. Punch-out meal cards are available; otherwise all purchases are cash.

Health Services-Emergency first-aid service under the supervision of a registered nurse is available to all members of the University community during regular business hours. For those on the voluntary University Health Plan (which includes all dormitory residents) a physician makes on-campus sick calls three days a week. In addition, the voluntary health plan covers the cost of the physician’s services for the first visit only in those emergency cases referred to University Medical
Center, which is adjacent to the campus. The student is responsible for other expenses, such as surgery, laboratory, and medicine.

Additional services or hospitalization are not covered by the voluntary University Health Plan. The University recommends that the student obtain separate hospitalization and medical insurance. A voluntary student insurance plan is available through the University that covers a schedule of expenses for surgery and hospitalization in case of accident or illness. The insurance plan should be requested at the time of registration. Information is available at the insurance desk as the student pays fees, and also in the student health and student affairs offices. This plan is particularly useful for parents whose family policy does not cover the dependent child after the 19th birthday.

**Housing**—The University is attempting to provide a variety of residence facilities for its expanding enrollment. It feels that a valuable part of the University experience is living for a period of time in close association with others following academic pursuits. Accommodations are designed and maintained to assure the safety and comfort of the residents at a cost that is within the reach of today's student. Programs and personnel are selected to enhance the academic achievement and personal development of the persons who live in these units.

Applications for both men's and women's residence halls 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 the safety and comfort of the residents at a cost that is within the reach of today's student. Programs and personnel are selected to enhance the academic achievement and personal development of the persons who live in these units.

Applications for both men's and women's residence halls 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 mid-year registration or certain special academic programs, if arranged for in advance. Only if a student withdraws from the University is a housing contract cancelled, and then in accordance with policies stated in the contract.

On-campus housing includes the Student Village, a new single-student apartment complex; Pfeiffer Hall; Stagmaier Hall; and the Vine Street dorm.

The Village houses 412 men and women students in apartments of four people each. It is fully carpeted, air conditioned and surrounded by parking and recreation areas. Each apartment contains four single bedrooms, a living room and a kitchen area.

Pfeiffer Hall houses approximately 42 students; Stagmaier Hall provides housing for 150 students. Most of the rooms in Pfeiffer Hall are for two students. Stagmaier Hall features four-person suites containing two sitting rooms, two bedrooms and a bath.

The Vine Street dorm is a traditional type facility with double rooms off a common hall. In the last few years considerable funds have been invested in order that this unit be more comfortable and attractive.

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 Housing Office.

Lounge and reception areas are available for recreation and visiting. All halls are air-conditioned. Laundry facilities with ticket operated, automatic washers and dryers are available for use by the students. Each student is normally furnished a bed, desk, chair, and dresser. Residents are expected to bring their own linens, blankets, towels and pillows. All rooms provide lighting, but frequently additional desk lamps are furnished by the student to suit particular needs.

Students may use small electrical appliances such as radios, hair dryers and clocks in their rooms but are not permitted to use hot plates, percolators, popcorn poppers, immersion heaters or other cooking equipment.

**I.D. Cards**—The University provides each full-time student with an official University I.D. card. This card is used to check out books from the library, to obtain special rates and privileges at many University functions and indicates the individual's right to use University facilities.

I.D. cards for new students are made at registration and distributed free of charge. Replacement cards cost $2.00. Lost I.D. cards should be reported to the Student Affairs Office immediately. Validation stickers are issued each semester and are placed on the back of the I.D. card.

Part-time students use their fee payment receipt as their I.D. card.

**Placement Services**—The University maintains a free year-round placement service which assists degree candidates and alumni in finding permanent employment while helping undergraduates in securing full-time, part-time and summer jobs on and off campus.

Individuals are requested to register with the placement service early in their senior year in order to take full advantage of the employment recruiting season, Job Opportunities bulletin, and various seminars and workshops. Individual employment counseling is also available.

Non-degree job orders are placed on the bulletin board in the Office of Placement Services for students to pursue at their convenience. Part-time institutional on-campus jobs, as well as typing, tutoring and babysitting jobs, are handled by this service.

Located in the University Center, the Office of Placement Services is an equal opportunity employment service for UTC students.

**Vehicle Operation and Parking**—The University at Chattanooga endeavors to provide adequate facilities for the increasing number of vehicles being operated by students and staff. However, because of the constant need to expand the teaching and research facilities for an ever-growing campus, the areas available for parking are necessarily limited. In an effort to provide parking facilities and to reduce the traffic congestion within the campus area, large student, faculty and staff parking areas are located on the perimeter of the campus.

Each person—student, faculty or staff member—who operates a motor vehicle while at the University must register that vehicle with the Business Office. A University parking authority determines the parking policy, traffic regulations and fees, and this information is published each year in the University Traffic and Parking Regulations.

The large volume of vehicles operated in and around the University campus necessitates strict adherence to the University Traffic and Parking Regulations. Therefore, a system of fees for violations of these regulations
Co-Curricular Activities

Athletics—As a member of the Southern Conference, the University maintains a vigorous intercollegiate athletic program with varsity teams in baseball, basketball, cross-country, tennis, football, track, rifle, wrestling and golf. The University also has women’s intercollegiate athletic programs in basketball, volleyball and tennis.

Facilities for support of these programs are excellent. Chamberlain Field is adapted to various forms of outdoor athletics. The stadium and permanent bleachers have a seating capacity of 12,000. Scrappy Moore Field is a regulation football practice field.

The DeSales Harrison Racquet Center, which lies adjacent to the Student Village, houses two indoor tennis courts and seven racquetball/handball courts.

The Manker Patten Tennis Courts and Field House, located at the north end of Douglas Street along the Tennessee River, are unequalled in the South. Eight Teneco courts, four all-weather, hard-surface courts, three grass courts and two indoor courts are available throughout the year. The courts are used for local and regional tournaments.

Macellan Gymnasium, constructed in 1965, provides facilities needed for the University’s physical education program and various varsity sports.

Intramurals—The University has an outstanding program available to all students. The program includes the following activities: flag football, tennis, handball, water basketball, swimming, volleyball, basketball, racquet ball, badminton, wrestling, Softball and golf. These activities are available to both men and women with the following exceptions: flag football and wrestling are available to men only.

Facilities for tennis, swimming, wrestling, handball, racquetball and water basketball are excellent.

Organizations and the Moccasin Christian Fellowship. University has copies of the Regulations will be available at the time students, faculty and staff register their vehicles for classes each semester.

Both classical and modern plays are presented each year by the department of theatre and speech in conjunction with the UTC Theatre, an organization open to students and faculty as well as members of the larger community. Students may participate as performers and crew members in these presentations.

Students interested in musical activities may choose from a variety of organizations. Vocalists may perform in the Chattanooga Singers, Chamber Singers, Singing Mocs, Choral Union and Opera Workshop, while instrumentalists can play in the Marching Band, Concert Band, UTC Orchestra, Jazz Band, Brass Ensemble, Wind Ensemble, Percussion Ensemble and chamber music groups. Students may also audition to perform in the Chattanooga Symphony or the Chattanooga Opera Association.

Students may purchase tickets at reduced prices to attend programs of the Chattanooga Symphony Orchestra and the Chattanooga Opera Association.

Under various auspices, outstanding speakers are brought to the campus each year. Prominent among these programs is the Keese Lectureship, established by W. S. Keese, Jr., in memory of his mother and father. Each year the Keese Lecture is delivered by a distinguished figure in the field of the humanities and the fine arts. Campus visits and lectures by outstanding poets are scheduled two or three times yearly by Dr. Paul Ramsey, Poet-in-Residence, and director of the Tennessee Poetry Circuit. Lectures, seminars, and discussion groups explore the nature of society, law and government, questions of national and international policy, and the responsibilities of the individual.

Publications—AW of the varied and active life on the campus of the University is reported and recorded by campus publications. The University Echo, the campus newspaper, provides a continual flow of news and opinion concerning campus activities. The Moccasin is the student yearbook which presents in text and photograph a record of the academic year. The Sequoya Review, which is published semiannually, provides a selection of poetry, prose, art and photography from the University community. Under the general direction of the Publications Board, the University Echo, the Moccasin and the Sequoya Review are staffed and managed by students.

Religious Life—The interest of the University in the religious life of the community is expressed in the existence of denominational centers and groups on campus, occasional religious services, and lectures by representatives of different faiths. Both Patten Chapel and the smaller Danforth Chapel offer appropriate settings for worship services.

The Baptist Student Union, United Methodist Student Center, Newman Foundation Catholic Center, Presbyterian Campus Ministry and Christian Student Center (Church of Christ) are centers on campus staffed by persons trained in theology and counseling who seek to minister to the religious needs and interests of the students and the community. Other religious groups are B’nai Brith Hillel, the Christian Science Organization and the Moccasin Christian Fellowship.

Social Fraternities and Sororities—The University has chapters of six national fraternities and seven national sororities that individually and collectively, through
the Interfraternity Council and Panhellenic, contribute to the social and cultural life of the campus. Many traditional events, All-Sing, Blue Key Follies and Greek Week, are supported by and depend to a great extent on the participation of fraternity groups.

The sororities Alpha Delta Pi, Chi Omega and Pi Beta Phi, have lodges which are used for chapter meetings, informal gatherings and social events. Phi Sigma Sigma was established on the UTC campus in 1976. The fraternities, Alpha Phi Alpha, Kappa Sigma, Lambda Chi Alpha, Pi Kappa Alpha and Sigma Chi, have houses near the campus. Alpha Kappa Alpha, Delta Sigma Theta, Zeta Phi Beta, Alpha Phi Alpha and Omega Psi Phi have been chartered recently as chapters of their national organizations.

Alumni Association

When the University of Chattanooga became a major campus of The University of Tennessee on July 1, 1969, all former students and graduates of UC automatically became members of the UT National Alumni Association which encompasses alumni from all campuses of The University of Tennessee.

The UT National Alumni Association is administered by a Board of Governors drawn from alumni of all campuses. The Chattanooga campus is represented on this governing body by the UTC Chancellor, three UTC alumni and the president of the UTC Student Government Association.

The UTC Alumni Council, whose membership is limited to those who attended the Chattanooga campus, exists to establish a mutually beneficial relationship between the Chattanooga campus and its alumni. The Council sponsors all alumni activities on the Chattanooga campus. The UTC Alumni Council maintains its offices at 605 Oak Street on campus.

UTC alumni are represented on the University of Chattanooga Foundation Board by three Alumni Trustees, one elected each year by the Council to serve three years on the board.

In an effort to acquaint students with the activities, goals and purpose of the Alumni Council, the Association sponsors the Undergraduate Alumni Council. This group is comprised of thirty students who work with the Offices of the Chancellor, Development, and Alumni to promote the University to the community and to act as liaison between the alumni and UTC students. Application for membership in the Undergraduate Alumni Council may be made in the Alumni Office.

Records on file in the Alumni Office include the current addresses of graduates and former students who were in attendance at least two semesters or have completed 24 hours of credit. When available, information about later achievements is added to the records and is included in UTC alumni publications which are mailed to UTC alumni throughout the nation and many foreign countries.

UTC Alumni Council

A. Vincent Blunt, III '66, '74, '76, President
Richard W. Buhrman '63, President-Elect
U. Kay Whaley '54, Treasurer
Mildred O. Fariss '47, Secretary
The Academic Program
Undergraduate Studies

Admission

The Admissions Office administers all matters pertaining to undergraduate admission. All requests for information and application forms should be addressed to the Director of Admissions, The University of Tennessee at Chattanooga, Chattanooga, Tennessee 37401. The Admissions Office telephone number is (615) 755-4157. Completed admissions applications and credentials should be sent to the same office. A $10 nonrefundable application fee is required of all candidates for admission who have not previously attended a University of Tennessee campus or the University of Chattanooga.

New students may be admitted at the beginning of either semester or any summer session. Every effort should be made to submit the completed application and supporting credentials to the director of admissions not later than four weeks prior to the beginning of the semester in which admission is desired.

General Admission Requirements

The University has four classes of general requirements that the applicant must satisfy: character, health, admissions test and credentials.

To meet the first requirement the applicant should show evidence of good moral character, usually by the recommendations of the high school principal or guidance counselor.

The second requirement, health, exists for the protection of the student. UTC students who reside in University housing or participate in the University health plan are required to submit a university health form completed by a physician.

An admissions test is required of all entering freshmen under 21 years of age through the American College Testing Program (ACT) or through the College Entrance Examination Board’s Scholastic Aptitude Test (SAT). Applicants are responsible for having the results of the test sent to the Admissions Office by either ACT or CEEB and should do so prior to their admission. Those who do not submit scores prior to their admission must do so early during their first semester. Information about and registration forms for either test may be obtained from a high school guidance counselor.

Specific Admission Requirements:

Freshmen

Graduates of state approved high schools may enter The University of Tennessee at Chattanooga upon completion of sixteen required units of work. Approved high schools are those on the approved list issued by the State Department of Education. For work done in schools outside of Tennessee, the University will usually honor credits accepted by the state university of that state.

To qualify for admission a high school graduate who is under 21 years of age must have achieved at least a 2.25 average on a 4.00 grading system in four years of high school or have either a composite standard score of 17 on the American College Test or a total score of at least 800 on the Scholastic Aptitude Test. A person 21 years old or older need only meet the grade point average requirement.

A Tennessee resident, who holds a high school diploma but whose high school average is less than 2.25 and whose composite ACT score is less than 17 or whose SAT score is less than 800, may be admitted to the University on a probationary basis for any term other than the fall semester. To qualify for continuation in the University the student must complete a minimum of twelve academic hours’ work and achieve at least a 1.00 average on that semester’s work.

Beginning with the fall semester of 1976, an experiment in admissions was initiated at The University of Tennessee at Chattanooga. Under the conditions of the experiment, graduates of approved Tennessee high schools are admitted to UTC. The experiment will be in effect through the fall semester of 1978. Applicants for admission as freshmen must still submit application materials, an application fee and test scores from either ACT or CEEB. After the fall of 1978 the admissions requirements outlined in the above paragraphs will be in effect for at least one academic year.

A student who meets the above conditions may be admitted to the University. Since the general education requirements for all degrees at the University include college study in English, humanities, behavioral
# HIGH SCHOOL UNITS REQUIRED FOR SPECIFIC PROGRAMS AT UTC

## Bachelor Degree Programs:

<table>
<thead>
<tr>
<th>Program</th>
<th>Group A Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Studies (B.A.)</td>
<td>English</td>
</tr>
<tr>
<td>Applied Mathematics (B.S.)</td>
<td>Algebra</td>
</tr>
<tr>
<td>Art (B.A.)</td>
<td>Geometry</td>
</tr>
<tr>
<td>Art Education (B.S.)</td>
<td>Trigonometry</td>
</tr>
<tr>
<td>Biology (B.A.)</td>
<td>Calculus</td>
</tr>
<tr>
<td>Business Administration (B.S.)</td>
<td>French</td>
</tr>
<tr>
<td>Chemistry (B.A.)</td>
<td>Spanish</td>
</tr>
<tr>
<td>Chemistry (B.S.)</td>
<td>Latin</td>
</tr>
<tr>
<td>Criminal Justice (B.S.)</td>
<td>Greek</td>
</tr>
<tr>
<td>Early Childhood Education (B.S.)</td>
<td>German</td>
</tr>
<tr>
<td>Economics (B.A.)</td>
<td>Italian</td>
</tr>
<tr>
<td>Economics (B.S.)</td>
<td>History</td>
</tr>
<tr>
<td>Education, Secondary School Programs</td>
<td>Civics</td>
</tr>
<tr>
<td>Elementary Education (B.S.)</td>
<td>Economics</td>
</tr>
<tr>
<td>Engineering (B.S.E.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Engineering Management (B.S.)</td>
<td>Computer Science</td>
</tr>
<tr>
<td>English and American Languages and</td>
<td>Sociology</td>
</tr>
<tr>
<td>Literature (B.A.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Environmental Studies (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Foreign Languages: French, Creek and</td>
<td>Sociology</td>
</tr>
<tr>
<td>Latin, Latin, and Spanish (B.A.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Geology (B.A.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>Sociology</td>
</tr>
<tr>
<td>Recreation Specialist (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>History (B.A.)</td>
<td>Sociology</td>
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<tr>
<td>Home Economics (B.S.)</td>
<td>Sociology</td>
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<tr>
<td>Humanities (B.A.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Human Services: Management (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Human Services: Social Work (B.A.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Human Services: Social Work (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Mathematics (B.A.)</td>
<td>Sociology</td>
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<tr>
<td>Medical Technology (B.S.)</td>
<td>Sociology</td>
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<tr>
<td>Music (B.A.)</td>
<td>Sociology</td>
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<tr>
<td>Music (B.M.)</td>
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<tr>
<td>Music Education (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Nursing (B.S.N.)</td>
<td>Sociology</td>
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<tr>
<td>Office Administration (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Philosophy and Religion (B.A.)</td>
<td>Sociology</td>
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<tr>
<td>Physics (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Political Science (B.A.)</td>
<td>Sociology</td>
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<tr>
<td>Psychology (B.A.)</td>
<td>Sociology</td>
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<tr>
<td>Psychology (B.S.)</td>
<td>Sociology</td>
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<tr>
<td>Sociology and Anthropology (B.A.)</td>
<td>Sociology</td>
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<tr>
<td>Sociology and Anthropology (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Special Education: General (B.S.)</td>
<td>Sociology</td>
</tr>
<tr>
<td>Theatre and Speech (B.A.)</td>
<td>Sociology</td>
</tr>
</tbody>
</table>

### Certificate Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>12</td>
</tr>
<tr>
<td>Basic Office</td>
<td>12</td>
</tr>
<tr>
<td>Computer Science Business</td>
<td>16</td>
</tr>
<tr>
<td>Computer Science Technical</td>
<td>9</td>
</tr>
<tr>
<td>Management</td>
<td>10</td>
</tr>
<tr>
<td>Office Administration</td>
<td>12</td>
</tr>
</tbody>
</table>

### Notes:

a) Two units of college preparatory mathematics (two units in algebra or one unit in algebra and one unit in geometry) are recommended.
b) Two units of college algebra are recommended.
c) Two units in one foreign language are recommended.
d) The three units of science should include physics.
e) Secondary Education majors who plan a teaching area in biology, chemistry, geology, math, or physics should have two units of algebra and one unit of geometry.
f) Two units in one foreign language (French, German or Italian) are recommended. Candidates for the degree must also have a knowledge of elementary theory sufficient for admission to the freshman theory course without condition and must pass an entrance examination in performance.
g) To insure adequate preparation to do college work successfully applicants are strongly urged to select as many high school units as possible from the following areas: English, mathematics, natural sciences, behavioral sciences and others from Group A. Accepted applicants indicating an interest in nursing will be classified pre-nursing majors. Admission to the Bachelor of Science in Nursing program is a separate procedure which takes place near the end of the sophomore year.

## Group B Units

<table>
<thead>
<tr>
<th>Program</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>12</td>
</tr>
<tr>
<td>Home Economics</td>
<td>16</td>
</tr>
<tr>
<td>Engineering Drawing</td>
<td>9</td>
</tr>
<tr>
<td>Shopwork</td>
<td>10</td>
</tr>
<tr>
<td>Distributive Education</td>
<td>12</td>
</tr>
<tr>
<td>Vocational Teacher Training</td>
<td>16</td>
</tr>
<tr>
<td>Physical Education</td>
<td>16</td>
</tr>
<tr>
<td>ROTC</td>
<td>16</td>
</tr>
<tr>
<td>Other subjects accepted for</td>
<td></td>
</tr>
<tr>
<td>high school graduation</td>
<td></td>
</tr>
</tbody>
</table>
American History Requirement:
Effective July 1, 1978 and afterwards, all students receiving a bachelor’s degree must have completed one semester hours of college-level American history as required by the General Assembly of the State of Tennessee (Tennessee Code Annotated 549-3253).

Specific Admission Requirements:

Transfer Students

Applicants for admission who have registered and have attempted any work in another institution of higher learning regardless of whether they wish to receive credit for it, must submit to the Director of Admissions complete credentials of their college work.

Students from accredited colleges and universities who have pursued college courses appropriate to the curriculum of The University of Tennessee at Chattanooga, who are eligible to return to their last institution, and who meet UTC continuation standards may be admitted to the University.

Tennessee residents who wish to transfer must have an overall grade point average equal to the minimum required for continuation. Students whose records do not meet the standards required by the University for admission will be denied admission unless in the opinion of the Dean of Admissions and Records or the Director of Admissions acceptance on scholastic probation is justified.

The University will usually accept, by transfer, work satisfactorily completed at regionally accredited senior colleges. However, transfer students seeking a degree from The University of Tennessee at Chattanooga must complete at least their last thirty academic hours of work at the University. If an applicant for transfer meets the requirements stated in the preceding paragraph, the University will accept, as either specific equivalents or electives, all credit earned. Such transfer credit is entered on the permanent record only after the student has registered for classes at The University of Tennessee at Chattanooga.

The University usually accepts at full credit value approved transfer courses completed with satisfactory grades at regionally accredited two-year institutions. A student transferring any credit from such an institution must complete the last sixty semester hours credit offered for a degree in an accredited senior college if the student uses the junior college credit toward graduation.

Students wishing to transfer to The University of Tennessee at Chattanooga from regionally unaccredited institutions of higher learning must fulfill the requirements stated above. For information concerning the amount of credit acceptable by transfer from regionally unaccredited institutions, applicants should communicate with the Office of Admissions of 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.

See page 32 for information concerning correspondence credit.

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. Applicants who have taken the advanced placement examinations may submit the results to the University for consideration.

In general the University will 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 permanent record at the University but will not be computed in the grade point average.

College-Level Examination Program-UTC 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 the Admissions Office of the University 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 permanent record but will not be computed in the grade point average.

Credit for experience-Individuals who have not earned a baccalaureate degree may be eligible to re-
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 Continuing Education Office, 755-4344.

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. 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 Educators 1974 Guide to the Evaluation of Education Experiences in the Armed Services or by the Commission on the Accreditation of Service Experiences evaluation service. Any veteran requesting military service credit should submit a copy of his DD Form 214 to the Records Office for evaluation.

The University also grants credit for most correspondence courses completed through USAFI. Veterans should apply to the Records Office with supporting documents of their previous training.

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 and/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:

a. courses described as directed research, tutorial, or directed independent study;

b. any course from which the student has been exempted by placement examination or which the student has presented for admission purposes;

c. any course in any education teaching block;

d. courses in which the student has received a final grade.

A fee of $15.00 will be charged for each semester hour for which credit is given.

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 the 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 transcript 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 transcript. Neither S nor/VC grades will be used in computing the grade point average.

Limitations on Non-Traditional Credit: CLEP, IEP, Military Service, Special Examinations (Proficiency or Challenge Examinations), Competency Based Programs

The maximum undergraduate credit that may be earned by these means is 60 semester hours. The limit for special or non-traditional credit shall be 30 hours for any one of these categories. Normally, non-traditional 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 non-traditional 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.

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 3.50 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 Dean of Admissions and Records or the Director of Admissions 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.

Summer Scholars Program- A summer scholars program is available for students who have completed the eleventh grade. The program is designed to give outstanding rising seniors an opportunity to preview college through taking selected regular courses during the summer term. Students will return to high school for their senior year. Students who apply for the program should have at least a B average and have completed at least 12 high school units. A recommendation from a secondary school counselor, principal or headmaster should be submitted. Students can earn up to 12 college credits and the credits will be applicable to a degree at UTC or may be transferred.
Admission by Examination

Those mature students who achieve a high school equivalency diploma through the General Education Development test may be admitted to the University on the basis of the test provided that they have scored at least a 45 on the CED test. Such students are required, however, to meet high school unit prerequisites to courses required in the University’s curriculum. Students under 21 years of age presenting a CED test score must also submit acceptable scores from either the ACT or SAT examination.

Audit Students

Any student registered for credit courses may enter classes as an auditor, subject to the approval of the student's advisor and of the instructor whose class is audited. An audit registration may not be changed to a credit registration later than the last date of registration for the semester.

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. Those under twenty-one may have this privilege only if they have fulfilled the admission requirements of the University. Any adult student entering under audit classification who subsequently wishes to take courses for credit must meet all requirements for admission to 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.

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 the 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 $75.00 per semester. Persons wishing to participate in any of the above programs should call the Continuing Education Office at (615) 755-4344.

Post-baccalaureate Students

Applicants for admission to the University who already hold baccalaureate degrees but who wish to take further undergraduate courses should apply to the Admissions Office. Proof that the applicant holds a baccalaureate degree should be furnished at the time of application.

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 $10 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.
3. An acceptable score on the Test of English as a Foreign Language for applicants whose native language is not English. Information about this test may be 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.
5. Evidence 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.

Adult Special Status

An applicant twenty-one years of age or older who wishes to take undergraduate courses, but who does not plan to work toward a degree or certificate 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 such a case the student’s grades will be reviewed and up to sixty 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 previous college work from another institution may not enroll as adult special students.
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 meet the requirements for admission to the University as transfer students as stated in the section on Specific Requirements: Transfer Students, 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.

Honors

University Scholars Program

University Scholars are those exceptionally talented and highly motivated students who have been awarded membership in one of the University's most prestigious honors programs. This program attempts to create an atmosphere, both academic and social, in which its members may develop their capacities for intellectual, moral and social leadership. The program's goal is a community of scholars, at various levels, benefiting from each other's work and providing the University and the community with ideas and new ways to excellence.

In order to achieve this goal, the program provides Scholars with a general education curriculum tailored to their talents and needs (See p. 73); a carefully integrated program of co-curricular activities; an advisory system that will enable each Scholar to derive the greatest benefits from the University's rich and varied resources; membership in a highly visible and respected group; and, a four-year financial scholarship award. In addition, University Scholars will be recognized as such at graduation and at other official University functions.

Each year the program admits to membership some twenty freshman students. Applicants are expected to have demonstrated outstanding achievement and promise in high school. Continuance is reviewed each year and is contingent upon the Scholar's academic performance, upon the recommendation of the director and of the University's Scholarship Board.

For further information or application forms, please write Dr. Peter Consacro, Director, University Scholars, The University of Tennessee at Chattanooga, Chattanooga, Tennessee 37401.

General University Honors

An undergraduate student will be graduated cum laude when the student's cumulative grade point average at the end of the final semester is 3.25. With an average of 3.50 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 3.75. These honors will be inscribed on the diplomas.

Academic Recognition and Honor Societies

The University recognizes scholarly achievement in a number of ways. Each semester the Dean's List is published, including the names of all students who achieve an average of at least 3.20 with a registration of 12 graded hours or more.

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 3.50 average on at least 12 graded hours in the first semester or a cumulative average of 3.50 at the end of the freshman year.

Blue Key, national recognition society for men and women.

Mortar Board, 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 3.00 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 3.50 average on at least 12 graded hours in the first semester or a cumulative average of 3.50 at the end of the freshman year.

Honor societies in specific areas include:

Beta Beta Beta (biology)
Delta Omicron (music)
Delta Tau Omega (geology)
Gamma Sigma Epsilon (chemistry)
Gamma Gamma Delta (home economics)
Kappa Delta Pi (education)
Lambda Iota Tau (literature)
Phi Alpha Theta (history)
Pi Delta Phi (French)
Pi Gamma Mu (social sciences)
Pi Mu Epsilon (mathematics)
Psi Chi (psychology)
Scabbard and Blade (military science)
Sigma Delta Pi (Spanish)
Sigma Pi Sigma (physics)
Sigma Xi (sciences)
Departmental Honors

The Departmental Honors program provides an opportunity for 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 examination in their major field. Graduation with Departmental Honors is recorded on the permanent academic record.

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 include an approximately two-page abstract in language intended for the intelligent and educated nonspecialist. The thesis will be defended by means of an oral examination administered by the major department. Each candidate's knowledge of a broad area of study is measured by a general departmental examination which may be written or oral, or may involve any nonroutine demonstration of general competency which is considered to be appropriate by the department.

The chairman 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 will sit as a nonvoting member on the oral examination concerning the thesis.

Interested students shall consult with their advisors 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 by the first school day in March for students working in summer and fall or fall and spring terms and by the first school day in November for students working in spring and summer, or spring and fall.

A progress report to the advisor and the chairman of the Departmental Honors Committee is due the Monday two weeks before the last week of classes in the first term of the two terms’ work.

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, and continuance in, the program requires an over-all grade-point average of 3.20, and a grade-point average of 3.50 in the major field. 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, normally courses numbered 495r, the distribution of hours in the two terms to be decided departmentally. 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 3.50 over-all 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.

Forms for admission to Departmental Honors candidacy can be obtained from the Office of Records. After the Director of Records has certified the candidate’s academic standing and grade-point averages, the application should be submitted to the head of the department by which Honors is to be granted.
Undergraduate Degrees

The University offers undergraduate programs which lead to the degrees of Bachelor of Arts, Bachelor of Music, Bachelor of Science, Bachelor of Science in Engineering, and Bachelor of Science in Nursing. Majors offered with these degrees are as follows (specific requirements, including study in related areas, are outlined in the appropriate colleges and divisions).

American Studies (B.A.)
Applied Mathematics (B.S.)
Art (B.A.)
Art Education (B.S.)
Biology (B.A.)
Business Administration (B.S.)
Chemistry (B.A. and B.S.)
Criminal Justice (B.S.)
Early Childhood Education (B.S.)
Economics (B.A. and B.S.)
Education, Secondary School Programs (B.S.)
Elementary Education (B.S.)
Engineering (B.S.E.)
Engineering Management (B.S.)
English and American Languages and Literature (B.A.)
Environmental Studies (B.S.)
Foreign Languages: French, Creek and Latin, Latin, and Spanish (B.A.)
Geology (B.A.)
Health and Physical Education
Recreation Specialist (B.S.)
History (B.A.)
Home Economics (B.S.)
Humanities (B.A.)
Human Services: Management (B.S.)
Human Services: Social Work (B.A. and B.S.)
Mathematics (B.A.)
Medical Technology (B.S.)
Music (B.A. and B.M.)
Music Education (B.S.)
Nursing (B.S.N.)
Office Administration (B.S.)
Philosophy and Religion (B.A.)
Physics (B.S.)
Political Science (B.A.)
Psychology (B.A. and B.S.)
Sociology and Anthropology (B.A. and B.S.)
Special Education: General (B.S.)
Theatre and Speech (B.A.)

Degree Requirements

I. General Education

The purpose of general education requirements is to guide the student to a realization of the scope of knowledge and the methods of various disciplines. Courses for each category are offered in numerous departments at all class levels.

The general education program is minimal. In setting forth such requirements the faculty is not implying that the requirement is all that the student needs in each category; nor is the faculty implying that any particular course offers a thorough knowledge of the discipline. Provided with an introduction and a point of departure, each student and his or her advisor determine the student’s needs and direction for furtherance of his or her education.

Courses meeting general education requirements are identified in the class schedule for each semester although all courses currently approved are listed below with each category. For this purpose, a Course means a program of study earning a minimum of three semester hours of credit. For transfer students the University will accept two and two-thirds semester hours in an approved equivalent course or two approved courses of two semester hours each in the same category to fulfill one course requirement. It is University policy that the student not schedule courses above his or her class level without permission of the department offering the course. Students majoring in general areas, such as humanities, are exempted from the requirement that the courses must be outside the major discipline. Also, courses for Category E, interdisciplinary or non-western, may be taken in the department of major discipline.

Category A

Written communication in the English language: two courses, one at the freshman level and one chosen by the student. English 101,102, 300, 410; University Scholars 101,102.

Category B

Humanities and fine arts: three approved courses outside the major discipline—one from the disciplines of classics, English, history, modern languages, philosophy, and religion; and one from art, music, theatre and speech. The third course may be selected from either humanities or fine arts.


F/next: Art 111,212,213,301,413,414; Music 111, 211, 212, 315, 316, 317; Theatre and Speech 101, 102,111, 211, 212, 213, 214, 280, 311, 312, 313, 315, 321, 331, 451 r; University Scholars 103, 104; University Studies 199*, 499*

*General Education credit only when approved topic offered.

An r following a course number indicates that, because of difference in content, the course may be taken more than once for credit.
Category C

Behavioral and social sciences: two approved courses outside the major discipline from the disciplines of anthropology, economics, education, geography, history, human services, political science, psychology and sociology.

Anthropology 152, 210, 211, 351; Economics 101, 102; Education 100; Geography 409; History 314, 315, 317, 415, 416, 419, 463; Human Services 101, 102, 201; Political Science 101, 102 242, 243, 302, 314, 323, 499r*; Psychology 101, 251; Sociology 125, 151, 199r*, 209, 215, 219, 220, 305, 317, 318, 340, 345, 391, 400r; University Scholars 105, 106; University Studies 199r*, 499r*

Category D

Mathematics, natural and applied sciences: two approved courses outside the major discipline selected from the disciplines of astronomy, biology, chemistry, engineering, geography, geology, mathematics, and physics.

Astronomy 101, 102; Biology 121, 122, 315; Chemistry 111, 121, 122; Engineering 107, 108; Environmental Studies 150; General Science 111, 112; Geography 101, 206; Geology 111, 112, 451, 499r*; Mathematics 120, 125, 126, 195, 210, 225, 303, 451, 452; Physics 101, 102, 103, 104, 230, 232, 318, 324, 411, 499r*; University Scholars 107, 108, 109; University Studies 199r*, 499r*

Category E

Interdisciplinary or non-Western: one approved course—these courses are offered in various programs and departments.

Interdisciplinary: Engineering 311; English 392; History 466; Human Services 300; University Studies 199r*, 499r*

Non-Western: Anthropology 208, 333r, 334r, 410, 425r; Art 211, 431, 432; Economics 444; English 333r; History 207, 208, 211, 212, 364, 365, 368, 370, 372, 499r*; Religion 211, 314, 316r, 491r*; Political Science 499r*; University Studies 199r*, 499r*

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.

*General Education credit only when approved topic offered. An r following a course number indicates that because of difference in content, the course may be taken more than once for credit.

III. Physical Education

Health and Physical Education 021, required in the first year, plus one additional physical education activity course with the exception of varsity sports. Transfer students and readmitted 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. See page 33 for regulations concerning waiver of this requirement.

IV. Foreign Language

For B.A. and B.M. degrees and for B.S. degree with a chemistry major: completion of second college year of study 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 or B.M. degree will fulfill the foreign language requirement by meeting the English requirements for foreign students.

V. Major

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

VI. 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 semester hours and co-op engineering graduates will need 144 semester hours. A minimum of 30 semester hours must be completed in residence on this campus, and the final 30 semester hours must be completed 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. See page 32 for further information.

B. Grade point average

A minimum grade point average of 2.00 must be achieved

1. On all cumulative work undertaken.
2. On all hours attempted at The University of Tennessee at Chattanooga.
3. Calculated over those semesters and/or terms in which the final 30 hours are earned.

*See pages 32-34 for additional information on academic regulations.
Other Programs

Certificates

The University offers a one-year certificate program in computer science and a two-year certificate program in office administration. At least 30 hours on the one-year certificate and at least the last 30 hours for the two-year certificate must be earned at The University of Tennessee at Chattanooga. A certificate candidate must earn at least a 2.00 average on all credits as well as a 2.00 average on all work taken on this campus. See appropriate departmental sections for outlines of these programs.

At the beginning of the semester preceding that in which the student expects to complete his or her program, the student must file application for a certificate with the Office of Records.

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 the 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 The University of Tennessee at Chattanooga 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 engineering, forestry, medicine, dentistry or medical technology. A Dual Degree Program for combined undergraduate and graduate study in political science or public administration is offered in conjunction with The University of Tennessee, Knoxville.

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 The University of Tennessee at Chattanooga.

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. The graduation fee is $10.

ENGINEERING (B.S.E.): After the completion of 104 semester hours of undergraduate work, including all requirements for the B.S.E. degree, and one year of approved work at The University of Tennessee, Knoxville, or the Georgia Institute of Technology, the student is awarded the Bachelor of Science in Engineering degree from The University of Tennessee at Chattanooga. At the end of the second year of acceptable graduate work, the student is awarded the M.S. degree from The University of Tennessee, Knoxville, or the Georgia Institute of Technology. This program is designed primarily for honor students. See page 151.

FORESTRY (B.A.): The first-year program in forestry at the School of Forestry of Duke University is required for this degree. At the end of the second year the student may receive the Master of Forestry degree from Duke.

The undergraduate program should include one year each of biology, including botany; chemistry; economics, including macroeconomics; mathematics, including analytical geometry and calculus; and physics; and a major in a behavioral or natural science.

Cooperative Education Program

The cooperative education program provides the student with the opportunity to gain practical work experience in a chosen major. Students may be placed on one of two systems: (1) the alternate system which requires that the student be employed full-time for one semester and then attend classes at The University of Tennessee at Chattanooga on a full-time basis the following semester or (2) the parallel system whereby the student is employed part-time and attends classes on a part-time basis.

A limited number of co-op positions are available each year in selected majors. Students interested in engineering co-op positions should contact the School of Engineering. Students majoring in fields other than engineering should contact the Division of Continuing Education. A co-op student placed on the alternate system in a non-engineering position should register with the major department for course 001 at the beginning of each semester that he or she is employed. Only students who have advance approval of the Division of Continuing Education and of their major department will be enrolled in this course.

Preparation for Health Professions

Students wishing to enter medicine, dentistry, nursing or one of the other health fields such as medical technology, physical therapy, pharmacy, dental hygiene, cytotechnology, or radiologic technology may complete their pre-professional training at The University of Tennessee at Chattanooga before going on to a professional school.

For the Bachelor of Science in Nursing program, which is offered by The University of Tennessee at Chattanooga, see page 144. 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 Center for Health Sciences at Memphis and include the specific requirements for admission to the respective colleges of the medical units there.

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

MEDICINE (B.A. or B.S.): Although the majority of students now earn the 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 Center for Health Sciences 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 biochemical or chemical instrumentation), advanced biology (comparative anatomy, embryology, animal physiology, cellular biology or genetics), calculus, psychology and social sciences. 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.

DENTISTRY (B.A. or B.S.): Minimum requirements for admission to the College of Dentistry of The University of Tennessee Center for Health Sciences are 90 semester hours of academic subjects, including 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, 12 hours of English composition and literature. Effective with the class entering in 1978, additional requirements will include 3 hours of speech and 8 hours of upper level biology courses (genetics, cell biology, and anatomy are recommended.) Courses in mathematics (particularly calculus), psychology and social sciences are strongly recommended. A student working toward a bachelor’s degree from The University of Tennessee at Chattanooga must complete 98 semester hours.

MEDICAL TECHNOLOGY (B.S.): Admission to an approved professional school of medical technology normally requires a minimum of 90 semester hours at an undergraduate institution. Specifically required for the B.S. degree from The University of Tennessee Center for Health Sciences are 16 hours of biology including microbiology, 19 hours of chemistry including 8 hours of organic chemistry and 3 semester hours of quantitative analysis. One course in mathematics (particularly calculus), 6 hours of English, and courses in physics and social sciences are strongly recommended. The completion of 98 semester hours with the program outline on page 55, together with 30 hours from an approved school of medical technology other than The University of Tennessee Center for Health Sciences, will result in the granting of the B.S. degree with a major in medical technology from The University of Tennessee at Chattanooga.

Other 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 Center for Health Sciences by completing one of the following programs. These programs by themselves do not lead to a degree from The University of Tennessee at Chattanooga. However, students wishing to do so 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.

PRE-PHARMACY: Students may be admitted to the School of Pharmacy of The University of Tennessee Center for Health Sciences upon completion of 60 semester hours, excluding physical education or military, which include the following courses or their equivalents:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology 121, 122</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry 121, 122</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry 351, 352</td>
<td>8</td>
</tr>
<tr>
<td>Physics 103</td>
<td>4</td>
</tr>
<tr>
<td>English 101, 102 and additional English course</td>
<td>9</td>
</tr>
<tr>
<td>Psychology 101</td>
<td>3</td>
</tr>
<tr>
<td>One course from Theatre and Speech 107, 108, 109, 309,</td>
<td>3</td>
</tr>
<tr>
<td>Business Administration 201</td>
<td>3</td>
</tr>
<tr>
<td>Social Science</td>
<td>6</td>
</tr>
<tr>
<td>Electives*</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
</tr>
</tbody>
</table>

Mathematics strongly recommended.

PRE-PHYSICAL THERAPY: Students may be admitted to the Physical Therapy School of The University of Tennessee Center for Health Sciences upon completion of 90 semester hours which include the following courses or their equivalents:

<table>
<thead>
<tr>
<th>Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology 121, 122</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry 121, 122</td>
<td>8</td>
</tr>
<tr>
<td>Physics 103, 104</td>
<td>8</td>
</tr>
<tr>
<td>English 101, 102 and 2 additional English courses</td>
<td>12</td>
</tr>
<tr>
<td>Psychology 101 and 1 additional psychology course</td>
<td>6</td>
</tr>
<tr>
<td>Sociology 151 and 1 additional sociology course</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
</tr>
</tbody>
</table>

Mathematics 140, social sciences, organic chemistry, and advanced biology such as genetics, embryology, or cell biology strongly recommended.

PRE-NURSING: Students wishing to prepare for the Bachelor of Science degree in Nursing program available at The University of Tennessee Center for Health Sciences at Memphis should complete the following courses or their equivalents to satisfy the minimum admission requirements there.

**Bachelor of Science in Nursing from The University of Tennessee at Chattanooga:** see page 144.
Courses | Semester Hours
--- | ---
Biology 121, 122 and Biology 191, 192 | 16
Biology 210 | 3
Chemistry 121, 122 | 3
English 101, 102 | 8
Psychology 101, 221, 232 | 8
Sociology 191, 215 | 9
Home Economics 105 | 3
Electives | 9
Total | 60

*Courses in physics, mathematics and social sciences strongly recommended.

PRE-DENTAL HYGIENE: Students may be admitted to the Dental Hygiene program of The University of Tennessee Center for Health Sciences upon completion of 64 semester hours including the following courses or their equivalents:

Courses | Semester Hours
--- | ---
Biology 121, 122 | 8
Biology 191, 192 | 9
Biology 210 or 311 | 3-4
Chemistry 121, 122 | 9
English 101, 102 and two additional English courses | 12
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* | 9-10
Total | 64

*Courses in mathematics and social sciences strongly recommended.

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

Courses | Semester Hours
--- | ---
English | 12
Biology 121, 122 | 8
Chemistry 311 | 4
Biology 328 and 330 | 7
Advanced science (analytical chemistry, organic chemistry, embryology, comparative anatomy, genetics, and physiology) | 8
Social science | 12
Electives* | 31
Total | 90

*Courses in human anatomy and physiology, physics, English, speech, mathematics, organic chemistry, and social sciences strongly recommended.

RADIOLOGIC TECHNOLOGY. Two years (64 semester hours) of preparation are required for admission to the Radiologic Technology program at The University of Tennessee Center for Health Sciences including the following courses or their equivalents:

Courses | Semester Hours
--- | ---
Biology 121, 122 | 8
Chemistry 311, 312 | 8
English 101, 102, 103, 104 | 8
Physics 103, 104 | 8
Psychology 101 | 3
Sociology | 3
Social science | 3
Speech | 3
Electives* | 10
Total | 64

*Certification by National Registry required; competency in college algebra required.
Academic Regulations

Catalog Changes—Unless otherwise specified for any changes made in a curriculum go into effect following publication of the catalog. It is possible for any catalog requirement to become void before it becomes effective.

Catalog Effective Dates—A student may elect to graduate under any one of three catalogs: (1) the catalog in effect at the time the student enters the University, provided this is not more than ten years prior to date of graduation; if more than ten years elapse the student may graduate under the catalog in effect at the time of his or her re-entry; (2) the catalog in effect at the time the student changes to a different curriculum; (3) the catalog in effect at the time of graduation; (4) transfer students may elect the catalog in effect at the time of entry to the University, provided this is not more than ten years prior to date of graduation; if more than ten years have elapsed since the time of such entry and the entry to the University.

All students seeking teacher certification must meet the approved programs for the year of graduation regardless of catalog requirements in effect at the time of entry.

Class/Year—Student classification is determined by the number of hours passed according to the following scale.

<table>
<thead>
<tr>
<th>Hours</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-23 hours</td>
<td>Freshman</td>
</tr>
<tr>
<td>24-39 hours</td>
<td>Sophomore</td>
</tr>
<tr>
<td>40-55 hours</td>
<td>Junior</td>
</tr>
<tr>
<td>56 or more hours</td>
<td>Senior</td>
</tr>
</tbody>
</table>

Continuation Standards—Any student who has an overall average below the listed standards is on probation.

Any student on academic probation during a semester or a summer session will be suspended or dismissed for academic reasons at the end of that semester if the overall average remains below the minimum standard and the semester or session average is less than 2.00. Generally a student on probation who fails to meet continuation standards is dismissed if at any previous time in the student’s academic career at UTC he or she has been suspended. See page 20 for statement concerning new freshmen admitted on probation.

A student who believes that extenuating circumstances were instrumental in his or her suspension or dismissal may appeal the case to the Faculty Petitions Committee. In order to appeal, the student must explain those circumstances in a petition form received in the Office of Records no later than the third day of classes in the regular semester or the second day of classes in the summer term for which readmission is sought. Petition forms are available in the Office of Records.

A dismissed student who does not submit an immediate appeal may not seek readmission, except through the Admissions Committee, for one calendar year following the dismissal. Application for readmission, of course, does not guarantee readmission. Applications must be made to the Admissions Office at least three weeks prior to the official registration dates for the semester or summer term for which the readmission is requested.

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 advance approval has been granted by the Petitions Committee.

Catalogs of correspondence study offered through The University of Tennessee are available for distribution in the Office of Continuing Education.

Degree Regulations

1. 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 application must wait until the next degree-conferring period to be awarded a degree. The graduation fee is $10 for undergraduates and $16 for graduate students and must be paid before the diploma will be released.
2. Degree Program Limits-Not more than 42 hours in any one department may be applied toward a Bachelor of Arts degree.

Not more than six hours in certain subjects (all office administration courses; Computer Science 123; all home economics courses except 105; engineering courses 101,102) may be applied toward a Bachelor of Arts degree.

3. Residence-The final 30 semester hours must be completed in residence on this campus, and a 2.00 average must be earned on these hours. 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. Students who attend junior or community colleges 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.

4. Second Bachelor's Degree-A student who has received one bachelor's degree 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 (with a 2.00 average) not offered for the first degree, and that an additional year is spent in residence.

Grade

is given for work of distinctly superior quality and quantity accompanied by unusual evidence of enthusiasm, initiative, thoroughness, and originality.

B is given for work showing the above qualities to a lesser extent.

represents substantial conscientious fulfillment of the minimum essentials of a course.

D represents passing work, but is below the standards of graduation quality.

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 Health and Physical Education 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 Office of Records 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.

IP is used as an interim grade to indicate work in progress requiring more than the normal limitations of a semester. It is restricted to graduate level courses (500 and above) and has a two-year limitation for removal. The instructor will determine the IP designation in the first half of the semester or term.

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

W indicates official withdrawal from one or more classes 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.

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

<table>
<thead>
<tr>
<th>Letter</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>S</td>
<td>not included</td>
</tr>
<tr>
<td>NC</td>
<td>not included</td>
</tr>
<tr>
<td>W</td>
<td>not included</td>
</tr>
</tbody>
</table>

Grade Point Average-Continuation in the University, rank in class, eligibility for honorary organizations or fraternities and sororities, and for scholarships are based on the grade point average. This average is computed by totaling the hours of graded work, including hours of F, and dividing this total into the number of quality points earned in graded courses. When a course is repeated, only the last grade and credit are included in the grade point average.

Military Service Credit—see page 23.

Physical Education Exemption-The University may grant the individual student a deferment or waiver after reviewing the necessary records submitted by the student. Men and women may be considered for exemption from the physical education requirement 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 Health and Physical Education 025. Guidance, participation, and evaluation are structured on an individual basis.

3. Veterans with equivalent military preparation.

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

Proficiency Examinations-see College-Level Examination Program and Credit by Special Examination, pages 22 and 23.

Repeated Courses-Courses may be repeated to raise a student’s grade point average. The first grade will be deducted from the attempted and earned totals but will not physically be removed from the permanent record. For all repeated courses, the last grade only will be computed in the cumulative totals and the grade point average. Students are responsible for notifying the Office of Records of repeated courses on forms available in that office or at the time of computer registration.

Records and Transcripts-The Office of Records maintains a permanent record on any student who has ever attended UTC. This record currently includes the student’s name, social security number, address, birthdate, sex, high school and high school graduation date, admission classification, and credits transferred 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.

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, birthplace and date, 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 who demonstrate 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.

A more thorough explanation of records maintained on students and copies of records may be obtained from the Office of Records. The Director of Records or the Dean of Admissions and Records will further explain and clarify the Family Educational Rights and Privacy Act to student, parents, or interested parties upon request.

Transcripts of a student’s record are released only on the student’s written authorization. A student is entitled to one transcript without charge; thereafter $1.00 is charged for each subsequent transcript. Requests should be made to the Office of Records in advance of the date on which the transcripts are needed.

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

Registration toads-Undergraduate registrations of 12 hours or more are considered full-time. A student who wishes to complete a degree program in four academic years will need to schedule an average of 16 hours each semester. Schedules of 17 hours or more are recommended only for students whose record indicates ability to carry the heavier load successfully. A schedule of over 20 hours is not permitted unless the student has obtained advance approval of the Petitions Committee. The maximum load for any term of summer or any combination of terms is 7 hours with a maximum registration of 20 hours for the entire summer session unless advance approval has been granted by the Petitions Committee.

W/fri/ra/wa/s-Once a student has submitted registration materials for a semester or summer term the student is considered to be enrolled and is liable for fee payment, unless he or she notifies the Registration Office in writing before the first day of classes of his or her intent to withdraw. After a semester or summer term is in session, a student is expected to attend all classes until or unless he or she notifies the Registration Office in writing of the student’s intent to withdraw from the University or from one or more classes. Withdrawal deadlines for each semester or term should be noted in the schedule of classes. Appropriate forms are available in the Registration Office. A student who drops out of class without officially withdrawing will be graded F.

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. A student who drops out of class during this six-week period is graded F. Comparable periods apply to summer terms and specific dates are printed in the class schedules.
# 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

<table>
<thead>
<tr>
<th>Program</th>
<th>Admission Degree</th>
<th>Test</th>
<th>Other requirements for admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Administration</td>
<td>M.B.A. CMAT</td>
<td></td>
<td>Business administration major or equivalent.</td>
</tr>
<tr>
<td>Criminal Justice</td>
<td>M.S. MAT***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education Administration and Supervision (Elementary or Secondary)</td>
<td>M.Ed. MAT*</td>
<td>Professional teacher certification; teaching experience recommended.</td>
<td></td>
</tr>
<tr>
<td>Community Counseling</td>
<td>M.Ed. MAT*</td>
<td>Twenty undergraduate hours in psychology.</td>
<td></td>
</tr>
<tr>
<td>Elementary Education</td>
<td>M.Ed. MAT*</td>
<td>Professional teacher certification for elementary schools.</td>
<td></td>
</tr>
<tr>
<td>Elementary School Counseling</td>
<td>M.Ed. MAT*</td>
<td>Professional teacher certification for elementary schools; teaching experience recommended.</td>
<td></td>
</tr>
<tr>
<td>Secondary Education</td>
<td>M.Ed. MAT*</td>
<td>Professional teacher certification for secondary schools; major in listed area. **</td>
<td></td>
</tr>
<tr>
<td>Secondary School Counseling</td>
<td>M.Ed. MAT*</td>
<td>Professional teacher certification for secondary schools; teaching experience recommended.</td>
<td></td>
</tr>
<tr>
<td>Special Education</td>
<td>M.Ed. MAT*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering</td>
<td>M.S.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>M.S. MAT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*GRE may be substituted on approval.  
**Restricted to majors in art education, business education, English, health education, history, mathematics, physical education, and the social or natural sciences.  
***GRE or LSAT may be substituted on approval.

The University of Tennessee at Chattanooga graduate offerings are designed to provide opportunities for both part-time and full-time graduate students. Classes for full-time graduate students in Business Administration, Criminal Justice, and Education are predominantly evening offerings; classes for Psychology are predominantly day classes.

During the summer semester, education students can plan on full-time study in day classes. Graduate courses in business administration and criminal justice are offered primarily during evening hours in the summer.

For more information concerning a specific degree program, please refer to the appropriate department or school.

Engineering courses, applicable toward advanced degrees at The University of Tennessee, Knoxville, have been offered for part-time students on the Chattanooga campus since 1965. The Chattanooga graduate engineering program operates through cooperative effort between UTC and UTK. For additional information see page 151.

For more information, application forms, or catalogs write or call:

Dr. Charles M. Hyder  
Director of Graduate Studies  
The University of Tennessee at Chattanooga  
Chattanooga, Tennessee 37401

## Admission Procedures

Anyone holding the baccalaureate or higher degree who wishes to take courses must make formal application for admission through the Graduate Admissions Office. Those who do not qualify for graduate admission or who elect to take undergraduate courses may be admitted as post-baccalaureate students.

To insure adequate consideration, the completed application and supporting credentials should be received by the Graduate Admissions Office no later than three weeks prior to the beginning of the semester or summer term for which admission is desired. In addition, some departments and schools have established application deadlines. Please refer to the appropriate school or department for this information.

Those filing applications after the established submission dates cannot be assured that it will be possible to complete and process credentials in sufficient time to secure admission for that term. An applicant for admission must furnish the following materials to the Graduate Admissions Office:

1. A completed, signed application on the form provided by UTC.
2. Payment of the $10, non-refundable, application fee.
3. Two official transcripts from each college or university previously attended sent directly from the institution to the Graduate Admissions Office.
4. An official report of the applicant's score on the prescribed test for admission.
5. Supplemental application materials as required by the school or department.

No action will be taken until the applicant's file is complete.
If an applicant does not enter UTC in the semester or summer term for which application was made, the applicant's file will be destroyed after one year unless he or she requests and is granted permission to enter at a future date.

All application credentials become the property of the University and are not returned. 

International Students-The University wishes to encourage qualified graduate applicants from other countries; however, applicants should be aware that UTC presently has few graduate programs at the master's level and no doctoral degree programs. In addition, the University has few fellowships, assistantships or other financial aids for graduate students. The foreign applicant must submit the following materials to the Graduate Admissions Office:

1. A preliminary application form.
2. An application for admission on the form provided by the University.
3. A draft or money order for the $10.00, non-refundable, application fee.
4. Copies of authorized school or university records with certified translations if the records are in a language other than English. Translations must include descriptive titles of courses studied and grades gained in final examinations.
5. Official scores on the Test of English as a Foreign Language (TOEFL).
6. Official scores on the admission test required by the major department.
7. Evidence of financial resources sufficient to provide at least $490.00 (U.S.) a month (or adequate support) during the applicant’s period of residence as a student.

All materials must be received by the Graduate Office approximately six months in advance of the fall semester in which the applicant wishes to enroll. An accepted applicant will receive a certificate of acceptance and an I-20 form which must be shown to the consular officer of the United States to whom the student applies for a student visa.

Graduate Admission
Requirements

An applicant for admission to the Graduate Division must: (1) hold a baccalaureate degree from a regionally accredited college or university and (2) have a minimum grade point average of 2.50 (based on a 4.00 scale) on all undergraduate work taken prior to receiving the baccalaureate degree or a 3.00 in the senior year or qualify for graduate admission by earning a B+ average on 9-12 hours of 300 or 400 level courses since graduation. Applicants who are seeking admission to a degree program must submit scores on the appropriate standardized test as required by the proposed major department.

An applicant who graduated from an unaccredited institution may be considered for admission with a 3.00 cumulative average or qualify for graduate admission by earning a B+ average on 9-12 hours of 300 or 400 level courses since graduation. Scores must be submitted on the appropriate admissions test if the applicant is seeking admission to a degree program.

An applicant for admission to a degree program should refer to the appropriate school or department for specific admission requirements since some degree programs require a higher academic average, additional admission requirements or utilize a formula for determining admission. International Students-In addition to the above requirements, international students must have earned a minimum score of 500 on the Test of English as a Foreign Language and submit evidence of financial resources sufficient to provide at least $490.00 (U.S.) a month (or adequate support) during the applicant’s period of residence as a student.

International students will be required to take an English proficiency examination after arriving at the University. Individuals who are unable to pass this examination will be required to enroll in a special English course for international students.

UTCSeniors-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 3.00 and is recommended by the head of his or her major department. Subject to the approval of the director of graduate studies, a student may earn up to six semester hours graduate credit prior to completing the bachelor’s degree. Such approval must be obtained each semester by completing the special application form which is available in the Graduate Admissions Office. The approved application must be submitted to the Registration Office at the time of registration.

Admission Classifications

Several admission classifications are utilized by the Graduate Division. The applicant should apply for admission according to the one classification which applies to his or her educational objective. International students, however, must apply for admission as degree students only.

/AuoVlor-Adults who wish to attend classes without earning credit or receiving grades may be admitted as auditors. A graduate application and transcripts are required. Individuals may register as auditors provided space is available in the class desired and if the instructor accepts auditors. The extent to which an auditor may participate in classroom activities is within the jurisdiction of the instructor. Fees for audit are the same as for credit registration.

Degree Graduate-Admission as a degree student is by departmental approval only. Thus, an applicant who wishes to be admitted as a degree graduate must file an application, transcripts, MAT, GRE, or GMAT scores
and supplemental application materials far enough in advance to allow for evaluation by the department or school. The evaluation will include a review of the applicant's undergraduate program and the specification of any prerequisite courses needed to insure adequate background for the graduate program. In addition to the above requirements, international students must submit a TOEFL score.

Non-degree graduate—An applicant who meets admission requirements and wishes to enroll in graduate courses and earn credit without reference to a degree program may be admitted as a non-degree graduate student.

A student classified as non-degree who wishes to be admitted to a degree program must file a formal request for this change with the director of graduate studies. In addition, the student must submit supplemental application materials as required for the proposed degree program. A maximum of 9 semester hours earned as a non-degree student will be accepted toward degree requirements.

The Graduate Division cannot assure a student classified as non-degree that all or any work completed in this status will apply toward a degree.

Post-master's graduate—An applicant who has a master's or terminal degree from an accredited institution and who is not working toward a degree may be admitted as a post-master's graduate student. A graduate application, application fee and transcripts from the university which awarded the master's or terminal degree are required.

Provisional graduate—An applicant who meets the admission requirements but whose file is incomplete may be admitted as a provisional graduate student. This type of admission is valid for one semester and may not be renewed. Further, the provisional graduate must have his or her file completed by the fifth week of the semester or second week of the summer term he or she enrolls.

In the event the student fails to complete the graduate file on the specified date, the student will not be permitted to register for a future term.

Transient graduate—An applicant who has been admitted to a graduate program at another institution and wishes to take courses for transfer to that institution may be admitted as a transient student. A graduate application, application fee, and letter of good standing or certificate of transient admission are required. The letter of good standing or certificate of transient admission must be signed by the graduate dean or appropriate admission test. The scores must be no more than five years old. The admission tests (except for TOEFL) are administered several times each year by the UTC Counseling Center, 216 Race Hall. Applicants should schedule all examinations well in advance of the date on which they wish to enter graduate study.

The Miller Analogies Test (MAT) is required for applicants to master's programs in criminal justice, education, and psychology. Students may schedule this test by group or individual appointment with the Counseling Center.

The Graduate Management Admissions Test (GMAT) is required of applicants for graduate study in business administration. Information about this test and application forms are available upon request from the Counseling Center or Educational Testing Service, Box 966, Princeton, New Jersey 08540. A score of 450 is required for all prospective international students.

The Test of English as a Foreign Language (TOEFL) is required of all applicants whose native language is not English. A score of 500 must be submitted before action can be taken on the application. Information about this test and application forms are available upon request from Educational Testing Service, Box 899, Princeton, New Jersey, 08540, USA.

All applicants should note that Educational Testing Service reports GRE, GMAT, and TOEFL scores to institutions named by the applicant at the time he or she applies for the test. A fee is charged for later requests.

Post-Baccalaureate Admission

Post-baccalaureate is an undergraduate admission classification which indicates that the applicant has a baccalaureate degree but wishes to enroll for additional undergraduate courses.

A student who does not qualify for graduate admission because of an inadequate grade point average may use post-baccalaureate status to demonstrate that he or she can do acceptable work. The attainment of a B+ average (an average greater than 3.00 on a 4.00 scale) on nine to twelve hours of 300-level or 400-level courses recommended by the proposed major department may be accepted as evidence for admission to graduate study, provided all other requirements are met. Upon earning the required grade-point average, the student must re-apply for admission to graduate study and complete the admission procedures as specified for the proposed degree program.

It should be noted that admission as a post-baccalaureate student allows the student to demonstrate ability but does not guarantee admission to a degree program. In addition, courses completed under post-baccalaureate admission may not count toward a graduate degree.
Each applicant is individually responsible for requesting an official copy of the scores from Educational Testing Service. Requests for additional reports of MAT scores should be directed to The Psychological Corporation, 304 East 45th Street, New York, NY10017.

Readmission

Any student whose attendance has been interrupted one or more semesters (excluding the summer session) must apply for readmission to the University. A new graduate application must be submitted prior to the beginning of the semester or summer term in which admission is desired.

Due to the competitive nature of some degree programs, readmission as a degree graduate may require departmental approval. In addition, students who have not been admitted to candidacy must follow the regulations in effect at the time of readmission.

General Regulations

A graduate student must assume full responsibility for knowledge of rules and regulations of the Graduate Division and departmental requirements concerning the individual degree program.

Advisor. The director of graduate studies is the general advisor for graduate students in procedural matters.

In substantive matters relating to the academic program and particular courses, each student is counseled by a member of the faculty of his or her major department or school. For programs with related area(s) of study, a representative of the respective department or school should also be consulted.

Continuation Standards. A student admitted to graduate study must maintain a minimum 3.00 grade point average on all courses taken for graduate credit. In the event the student fails to meet this standard, one of the following actions will be taken.

Probation. A student will be placed on academic probation whenever the grade point average falls below 3.00 on courses completed for graduate credit. The student must bring the cumulative average up to 3.00 during the next term of enrollment. In the event the student fails to bring up the average, he or she will be suspended from the Graduate Division.

Suspension. The student will not be permitted to enroll in graduate courses for a stated period of time (normally the next successive term) after which he or she may apply for readmission. It should be noted that an individual summer term counts as a period of suspension. The student is encouraged to consult with his or her advisor during the period of suspension.

A student granted readmission is placed on probation. In the event the student fails to bring the cumulative average up to 3.00 at the completion of the second period of probation, the student will be dismissed from the Graduate Division.

Dismissal. The student will not be permitted to enroll in graduate courses for an indefinite period of time.

Decisions regarding continuation will be made by the director of graduate studies. Any graduate who receives an F in a graduate course or more than two grades below B will be dismissed from graduate study and his or her admission to the Graduate Division canceled. The dismissed student must petition the Graduate Council for readmission as a graduate student. These academic actions become a part of the permanent record.

Correspondence Study. No correspondence credit is acceptable toward a graduate degree.

Credit by Special Examination (Proficiency/Challenge/Competency). Any person admitted as a graduate student is eligible to receive credit by special examination for competence gained through study and/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, directed independent study, and practicums or internships.
2. Any course from which the student has been exempted by placement examination or which he or she has presented for admissions purposes.
3. Courses in which the student has received a final grade.

A fee of $30.00 per semester hour will be charged for graduate credit. A graduate student may earn a maximum of 6 semester hours credit by special examination.

Students seeking credit by special examination shall, on forms provided by the Graduate Office, request approval from the permanent committee on special examinations established by the department under which the course is described in the 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. Where the student has at any time enrolled in a course for credit or audit, the committee shall presume that the student gained competence through class-related work. In such circumstances, the student faces a heavy burden of proving to the satisfaction of the committee that he or she has gained competence in the subject by pursuing a program of study independent of class activities.

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. Normally, a student will not be allowed to repeat a special examination in a given course within one year.

Upon demonstrating that he or she has developed the abilities and attitudes of students who have taken the course, the student will receive a grade of A, B, or
Full-time Enrollment-

Individuals who are admitted to the Graduate Division will be considered as full-time students if they are enrolled in nine or more semester hours for graduate credit, three-quarter time students if they are enrolled in six to eight semester hours for graduate credit, and half-time students if they are enrolled for three to five semester hours for graduate credit.

Grades-

Grades in the Graduate Division have the following meaning:

- **A** is given for work of distinctly superior quality and accompanied by unusual evidence of enthusiasm, initiative, thoroughness and originality.
- **B** is given for work showing the above qualities to a lesser extent.
- **C** represents fulfillment of the minimum essentials of a course.
- **D** represents poor work.
- **S** is given for courses completed on a satisfactory/no credit basis. The hours are not computed in the grade point average. Satisfactory grades are limited to elective courses and must be designated as such by course and not by individual student. No more than 6 hours of satisfactory credit may be applied toward 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 Office of Records 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. An Incomplete may not be used to allow the student to do additional work to bring up a grade.
- **IP** is used as an interim grade to indicate work in progress requiring more than the normal limitations of a semester. It is restricted to graduate level courses (500 and above) and has a two-year limitation for removal. The instructor will determine the IP designation in the first half of the semester or term. A student may not register for additional courses if he or she has earned two IP grades.
- **F** indicates unqualified failure. Any graduate student who earns an **F** in a graduate course will be dismissed from the Graduate Division.
- **W** indicates official withdrawal from one or more classes after the first two weeks of classes, and up to the last six class weeks before the final examinations. Comparable deadlines apply to each of the summer terms.
- **Grade Point Average** is based on the grade point average. Transfer credits, S (Satisfactory) grades, and grades earned in courses taken for undergraduate credit are not utilized in computing the grade point average. No grade below **B** will be accepted by transfer.

Registration Dates of registration and class offerings are published in the schedule of classes for each semester and summer session. Students must consult with their advisor prior to arriving at the Registration Office, Room 130, Hooper Hall.

Repeated Courses-A graduate student may repeat a course only with approval of the student’s major advisor, and both grades earned will be included in computing the grade point average.

Residence Classification for the Purpose of Paying University Fees-At the time of admission, each student is assigned a residence classification for fee purposes. The regulations which are utilized to determine a student’s residence classification are published in the Student Handbook. The regulations may be obtained also from the Graduate Admissions Office.

The student who wishes to appeal his or her residence classification should submit a written appeal to the Graduate Admissions Office. The appeal should include appropriate evidence to support the establishment of domicile in the State of Tennessee.

If a student classified out-of-state applies for in-state classification and is subsequently so classified, his or her in-state classification shall be effective as of the date on which reclassification was sought. However, out-of-state tuition will be charged for any semester during which reclassification is sought and obtained unless application for reclassification is made to the Graduate Admissions Office on or before the last day of regular registration of that semester.

Schedule-
summer semester, the maximum load is 7 hours per summer term with the total for the semester not to exceed 15 hours. A graduate student may not enroll in more than 7 hours of course work for any term during which the student will be gainfully employed full-time.

Registration for more than 15 hours during any semester is not permissible without prior approval of the director of graduate studies.

Undergraduate Courses for Graduate Credit-Selected 300 and 400 level courses may be taken for graduate credit. In such cases, the course requirements for the graduate student will be suitable to the graduate level and include additional work.

Students who wish to enroll in a 300 level course for graduate credit must submit the form entitled Request To Take a 300 Level Course for Graduate Credit and receive approval from the director of graduate studies prior to registering for the course. Students who enroll in 400 level courses for graduate credit must submit the form entitled Graduate Student Requirements in 400 Level Courses to the instructor. These forms are available in, and must be returned to, the Graduate Admissions Office after obtaining the appropriate signatures. No student will be permitted to enroll in 300 level courses without written approval of the director of graduate studies. It should be noted that no more than 15 hours of graduate credit earned in 300 and 400 level courses may be included in any master's degree program.

Veteran's Benefits-A veteran who expects to receive benefits for graduate study must be admitted as a degree graduate student and meet the enrollment equivalents specified on page 36. The only exception is the veteran who is required to complete prerequisite courses. In such cases, the veteran may count the prerequisites specified on the Admission Status Form toward the full-time enrollment equivalents provided the student is enrolled concurrently in a graduate course required for a degree. In no case, however, will the number of prerequisites exceed 12 hours or carry a 300 level course number. This provision is allowed since these courses are required to meet the student's degree objective.

Any individual who is admitted as a post-baccalaureate student is excluded from all provisions as stated above. Post-baccalaureate students will come under the enrollment equivalents established for undergraduates.

Withdrawal from Graduate Courses-Once a student has registered for a semester or summer term he or she is considered to be enrolled, is liable for fee payment, and is expected to attend all classes until or unless he or she notifies the Registration Office in writing. Appropriate forms are available in the Registration Office, Room 130, Hooper Hall. A student who drops out of classes without officially withdrawing will be graded F and dismissed from the Graduate Division.

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 classes, a student who officially withdraws will be graded W. Except in unusual circumstances, no withdrawals are permitted in the last six weeks of classes. A student who drops out of class during this six-week period is graded F and dismissed from the Graduate Division. Comparable periods apply to summer terms and specific dates are printed in the schedule of classes.

**Regulations for Master's Degrees**

Specific requirements for each degree program are given under the degree heading. Regulations applying to all master's degrees are stated below.

**Admission to Candidacy**-Admission to a graduate degree program allows the student to demonstrate ability but does not guarantee the right to continue toward a degree unless he or she is admitted to candidacy.

The application for admission to candidacy should be made after the student has completed in residence 12 semester hours of approved graduate courses (excluding transfer credit and any specified prerequisites). This application must be filed before completion of 18 hours for students pursuing graduate degrees in business, criminal justice, education, and industrial/organizational psychology. Graduate students in clinical and school psychology must file for admission to candidacy before completion of 30 hours. The appropriate form may be obtained at the Graduate Admissions Office.

In order to be eligible for admission to candidacy, the student must have a "B" average, with no incomplete grades, on all courses taken for graduate credit and have completed courses as required by the major department or school.

In addition, some departments require that applicants for admission to candidacy successfully complete a qualifying examination prior to admission to candidacy for the degree. Please refer to the appropriate department for specific information regarding qualifying examination requirements or other departmental requirements for admission to candidacy.

On the application the student must list the courses which he or she has completed and those which he or she plans to complete to fulfill requirements for the degree. The application, reviewed and signed by the major advisor and approved by the appropriate graduate committee, must be filed with the director of graduate studies at least one semester prior to the date on which the degree is anticipated.

**Application for the Degree**-Commencement is held each year in May and August. Students who expect to receive graduate degrees must file an application for the degree with the Office of Records by the date specified in the schedule of classes. The application form is available in the Office of Records. A graduation fee of $16.00 must be paid before the diploma will be released.

**Catalog Changes**-Unless otherwise specified, any changes made in a master's program go into effect following publication of the catalog. It is possible for any catalog requirement to become void before it be-
comes effective.  

Catalog Effective Date-Graduate students will follow the catalog in effect at the time of admission to candidacy.

Comprehensive Examinations- A candidate for a graduate degree must follow the policy of the department respective to the administration of comprehensive examinations. In some degree programs, comprehensives are waived or options are given. Where applicable the examination is administered by the major department or school but includes the related areas of study. The mode of this examination may be oral or written with the approval of appropriate graduate committee. The examination is normally taken in the semester in which the candidate is completing the course requirements. An application must be filed with the director of graduate studies at least one month prior to the date of the comprehensive examination.

A student who fails the comprehensive examination may retake the examination once if recommended by the major department or school. In unusual circumstances, a student may petition the Graduate Council for a third examination with the approval of the major department or school.

Comprehensive Examination Dates

<table>
<thead>
<tr>
<th>Fall, 1978</th>
<th>Spring, 1979</th>
<th>Summer, 1979</th>
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<tbody>
<tr>
<td>November 11</td>
<td>March 17</td>
<td>July 14</td>
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Course Requirements- The total minimum credit required for a master's degree varies from 33 to 60 semester hours as specified for the particular degree program. At least one-half of the total hours must be in the major areas. Credits in elective areas shall be as specified in the degree program or as approved by the department or school.

A maximum of 15 hours of approved graduate credit earned in 300 or 400 level courses may be included in any master's degree program. In such case, the course requirements for the graduate student will be suitable to the graduate level as stated on the appropriate form to be submitted to the Graduate Admissions Office. The same credits may not be used toward two master's degrees.

Prerequisite Courses- Graduate study in any department or school must be preceded by sufficient undergraduate work to satisfy the department or school that the student can continue at graduate level in the chosen field. Each student's undergraduate record is examined by the appropriate department or school before admission to a degree program is granted. Since undergraduate courses differ in content and extent, not all prerequisites can be listed in the bulletin. Specified prerequisite courses must be taken for undergraduate credit or challenged by special examination. Undergraduate prerequisites do not count toward degree requirements.

Time Limit- A credit applied toward a master's degree must be earned within a six-year period beginning with registration for the earliest course counted. In unusual circumstances exceptions to this regulation may be considered by the Graduate Council.

Transfer Credit-A maximum of 10 semester hours of University of Tennessee courses may be applied toward a master's degree when appropriate to the student's program. A maximum of six semester hours from institutions outside of the UT system may be transferred into a student's program. Such work must have been taken in residence for graduate credit and passed with a grade of B or better, must be part of an otherwise satisfactory graduate program (B average), and must be approved by the major department or school. The combined total of transfer credit normally may not exceed 10 semester hours.

Initiation of procedures to have transfer credit accepted is the responsibility of the student, who must have two official transcripts sent to the Graduate Admissions Office directly from the institutions at which the work was taken. The transcripts are evaluated by the major department or school and, if approved, the credit is recorded and incorporated into the student's plan of study. However, transfer credit is only officially awarded at the time the student is admitted to candidacy. Credits transferred will not be counted in determining the student's grade point average.

Residency Requirement- School of Education- All graduate degree students in education are required to complete one semester in residence. Summer work may fulfill this requirement.
Division of Continuing Education

The Continuing Education Division is the administrative unit which develops, coordinates and supervises continuing education and public service programs offered by The University of Tennessee at Chattanooga.

Evening College

The Division of Continuing Education works with the academic deans, directors and department heads of the University to provide a balanced schedule of credit course offerings to meet the needs of individuals who wish to complete degree programs through evening study. The division publishes a brochure each semester listing all evening credit courses offered on campus as well as off campus.

The Continuing Education Office is open from 8:00 a.m. to 8:30 p.m. Monday through Thursday, 8:00 a.m. to 5:30 p.m. Fridays, and 8:00 a.m. to 2:00 p.m. on Saturdays. Persons requiring assistance or in need of the evening study brochure may come to the office or call during these hours.

Off-Campus Credit Courses

Off-campus UTC credit courses have been offered at numerous locations including Cleveland, Dayton, Jasper and Soddy Daisy. Persons interested in having UTC credit courses taught at an off-campus location should contact the Division of Continuing Education for further information.

Individualized Education Program

The Individualized Education Program was launched as an official unit of The University of Tennessee at Chattanooga in August, 1972. The primary purpose of the program is to make the University more accessible to adults who wish to enter or return to college. Specific objectives of the Individualized Education Program are 1) to inform adults in the community about the educational opportunities available at The University of Tennessee at Chattanooga; 2) to assist adults in making the transition into college life; and 3) to coordinate the process of awarding academic elective credit to adults for their previous work and training experience.

Adults are encouraged to contact the Division of Continuing Education for orientation and assistance related to admission procedures, registration and academic requirements if they are considering entering or returning to the University.

Non-Credit Courses

Non-credit courses dealing with a wide variety of topics and interest areas are offered through the Division of Continuing Education and are open to the general public. These non-credit courses are divided into three major categories: professional development, arts and sciences and personal interest. Programs relating to the areas of management development, music, art, literature, foreign languages, recreation, engineering, real estate, home economics and consumer education are offered throughout the year. Non-credit course format ranges from one-day workshops or seminars to 16-week courses conducted during the day or evening at a variety of campus and off-campus locations.

Subject to the approval of the Continuing Education Council, participation in many non-credit courses is recognized by the awarding of individual Continuing Education Units (CEU's). One CEU corresponds to ten hours of participation in an approved program and is particularly valuable to persons desiring professional development and in-service training. Individual transcripts recording CEU's are maintained in the UTC Office of Records.

The professional staff of the Division of Continuing Education welcomes suggestions for new and different non-credit courses. Special emphasis is placed on designing programs that meet the expressed needs of the Greater Chattanooga Area population and on delivering these courses at times and locations most convenient for those who indicate an interest.

Conferences and Institutes

As part of the Division's community service and professional development activities, the staff provides assistance to business, industry, government, social service agencies and professional organizations for the purpose of developing and coordinating conferences and institutes which focus on topics of concern to the particular group. Groups as small as ten, or those numbering two hundred or more can be accommodated in the University's varied facilities. If requested, CEU's (as discussed above) may be awarded to conference or institute participants.
In-Plant Service

The Division of Continuing Education draws on the wide and diverse resources of UTC’s professional faculty to offer both credit and non-credit programs to business, industry and government in Chattanooga and the surrounding areas. Most of these programs are tailored to the specific needs of the sponsoring company and are carried out in the company's facilities. The Division also assists in making arrangements for faculty members to act as consultants whose task is to define problem areas and design courses which respond to particular technical or training needs.

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 $75.00 per semester. The Division of Continuing Education 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 Division of Continuing Education rather than apply for admission at the UTC Admissions Office.

Other Services

Additional services provided by the Division of Continuing Education include (1) administering the non-engineering cooperative education program (see page 29 for further information); (2) furthering public awareness of University activities through the UTC radio program “On Campus”; (3) participating in the Appalachian Education Satellite Program whereby greater numbers of people may have access to educational programs and courses through regional satellite television broadcasts; (4) representing the University of Tennessee Statewide Division of Continuing Education in providing correspondence, radio, and television instruction; (5) arranging for courses offered by other UT campuses to be taught at UTC; (6) providing faculty and facilities for programs conducted by The University of Tennessee’s Institute for Public Service; (7) participating in the U.S. Army Project Ahead Program; and (8) coordinating the Listener’s Program whereby individuals 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.

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 guardianships, 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-of-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 Admissions with this information in order that a reappraisal of residence status may be made.

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

<table>
<thead>
<tr>
<th>MAINTENANCE FEE</th>
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<tbody>
<tr>
<td>(Undergraduate)</td>
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<tr>
<td>per semester $256.00*</td>
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<tr>
<td>(Graduate)</td>
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<td>per semester $274.00*</td>
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<th>TUITION</th>
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<tr>
<td>(Additional for out-of-state students)</td>
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<td>per semester $468.00</td>
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Undergraduate students:
In-state $24.00 per semester hour or fraction thereof; minimum charge $48.00.

Out-of-state $61.00 per semester hour or fraction thereof; minimum charge $122.00.

Graduate students:
In-state $35.00 per semester hour or fraction thereof; minimum charge $70.00.

Out-of-state $83.00 per semester hour or fraction thereof; minimum charge $166.00

* Eighteen dollars of the fee is allotted to the bond obligation of the new University Center.
The University of Tennessee at Chattanooga honors Visa and Master Charge for certain student expenses.

**Fee Payment**

A student will not be allowed to register with a debt due the University.

Students must pay their fees on the regular dates designated for this purpose. Effective the first regular business day (excluding Saturday, Sunday, and any holidays) following the last regular fee payment day, a graduated late service fee of $2.00 per regular business day will be charged during the next ensuing five regular business days ($2.00 the first day, $4.00 the second day, $6.00 the third day, $8.00 the fourth day, and $10.00 the fifth day). After the fifth day, students will be charged an additional $10.00 late service fee. This $10.00 service fee is also applicable to room charges which are not paid within the five regular business days following the last designated fee payment day.

Students who have not completed registration and paid their charges within the 10 ensuing regular business days after the last regular fee payment day may be withdrawn from the University and will not be allowed to re-enter the University or receive an official transcript until the debt is paid. A student in this category may be permitted to continue enrollment after a $10.00 reinstatement service fee, in addition to the other late service fees, is paid (total $30.00).

On Saturdays when the Registration Office and/or Business Office may be open for a part of the day, the late registration service fees scheduled to be in effect on the following Monday will apply to fee transactions handled on Saturday.

No student is officially authorized to attend classes until he or she has properly registered and paid fees.

All students, including those who have their fees paid by scholarship or other sources, must obtain a validated fee receipt from the Business Office or be charged the late fee. Any student who submits registration materials will be obligated for a percentage of the account even if the student does not attend classes unless the records office is notified in writing, prior to the first day of classes, that the student wishes to cancel the registration.

Any checks received by the University which fail to clear the bank on which drawn will incur a service charge. A check written to cover tuition and fees, which fails to clear the bank, will incur the appropriate service fee and reinstatement fees (maximum $30.00) in effect at the time the student redeems the check.

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

**Refund of Fees and Adjustments**

No refund is due on courses which are dropped unless the charge for the remaining courses plus the adjusted charge for the courses dropped is less than the maximum semester charge for tuition and or 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.

For a fall or spring semester, withdrawal from all classes within 10 calendar days beginning with the first day of classes permits a 80% fee refund. Withdrawal between 11 through 20 calendar days beginning with the first day of classes permits a 60% fee refund. Withdrawal between 21 through 30 calendar days beginning with the first day of classes permits a 40% fee refund. Withdrawal between 31 through 40 calendar days beginning with the first day of classes permits a 20% fee refund. For withdrawals after 40 calendar days beginning with the first day of classes no fee refund is permitted.

For courses dropped during a fall or spring semester, which do not result in a complete withdrawal, within 10 calendar days beginning with the first day of classes a 100% refund is permitted. For courses dropped between 11 through 20 calendar days beginning with the first day of classes a 60% refund is permitted. For courses dropped between 21 through 30 calendar days, beginning with the first day of classes, a 40% refund is permitted. For classes dropped after 30 calendar days beginning with the first day of classes no refund is permitted.

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. A statement of account will be sent to students who owe additional amounts. Students not responding to such statements will be withdrawn from the University. Such a withdrawal does not relieve the financial responsibility.

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

**Summer School Fees**

Academic fees and regulations for the summer sessions are the same as for the regular semesters. Housing and meals are available at costs appropriate to the time periods.

For the summer terms, withdrawal from all classes within 3 calendar days beginning with the first day of classes for each term permits an 80% fee refund. Withdrawal between 4 through 6 calendar days permits a 60% refund. Withdrawal between 7 through 9 calendar days permits a 40% fee return, while withdrawal between 10 through 12 calendar days permits a 20% refund. Withdrawal after 12 calendar days permits no fee refund.

A 100% refund is permitted for courses dropped within three calendar days beginning with the first day of classes for each term, if the courses dropped do not result in complete withdrawal. For courses dropped between 4 through 6 calendar days a 60% refund is permitted. For courses dropped between 7 through 9 calendar days a 40% refund is permitted. For courses dropped after 9 calendar days no refund is permitted.

In distinguishing between a drop and a withdrawal during the summer, each term is considered individually.
For summer terms a graduated late service fee of $2.00 per regular business day will be charged during the five regular business days following the last regular fee payment day ($2.00 the first day, $4.00 the second day, $6.00 the third day, $8.00 the fourth day, and $10.00 the fifth day). Students who have not completed registration and paid their appropriate charges within the five ensuing regular business days after the last regular fee payment day, may be withdrawn from the University and will not be allowed to re-enter the University or receive an official transcript until the debt is paid. A student in this category, either before or after withdrawal, may be permitted to continue enrollment but will be charged a $10.00 reinstatement fee in addition to the other late service fees (maximum $20.00).

Use of University Programs Card

*Full-time Students:* Students paying the full maintenance fee are entitled to a Programs Card and a Student I.D.

*Part-time students:* Students paying less than the full maintenance fee may voluntarily purchase a Programs Card and Student I.D. each semester for the difference between the amount they paid and the full maintenance fee, whichever is less.

The Programs Card entitles a student to admission to certain campus activities; however, some campus programs are not covered by the Programs Card and an additional subscription or special ticket is sold. These activities include the yearbook, the literary magazine and tickets to some concerts and dances.

Student Tickets to Major Athletic Events (Football and Basketball)

*Full-time Students:* Students possessing a Programs Card are entitled to claim an individual ticket for each game. There are a limited number of student tickets available and students are allowed to pick up their tickets on a first-come basis. The tickets are issued during a specified period prior to each game at an announced place.

**Graduation Fee**

- *Bachelor's Degree:* $10.00
- *Master's Degree:* $16.00

Fee is payable at the beginning of the semester in which the candidate is to graduate. Academic robes will be available for purchase from the bookstore.

**Thesis Binding Fee:** $10.00

Payable, by students who are required to write a graduate thesis, at the beginning of the semester in which the candidate is to graduate.

**Application Fee:** $10.00

Payable with each undergraduate or graduate application.

**Proficiency or Special Examination Fees**

Payable for each proficiency or validation examination.

- Undergraduate: $15 per credit hour
- Graduate: $30 per credit hour

**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.

**Adult Special Fees** Adult special students pay fees at the undergraduate rate. Post-baccalaureate students pay fees at the undergraduate rate.

**Housing** Room rents vary from $230.00 to $320.00 per semester according to the accommodations available. A $25.00 reservation-damage deposit is required from students applying for housing.

**Meals** Meals in the University cafeteria are served a la carte. Meal tickets may be purchased at the University cafeteria.
Financial Aid

The University has available a variety of means by which to assist promising students who might otherwise find the costs of a college education prohibitive. Through the financial aid program, eligible students may receive one or more types of financial aid to assist them and/or their parents in the payment of college expenses. Financial aid includes scholarships, grants-in-aid, loans and student employment. Financial aid at the University is awarded basically upon a student's academic achievement and financial need, but consideration is also given to the character and leadership of the student.

Students requesting financial assistance—scholarship, loan, grant, or work—from The University of Tennessee at Chattanooga will need to complete and submit the UTC Application for Student Financial Aid and the Family Financial Statement of the American College Testing (ACT) Service. These forms are available in the UTC Financial Aid Office and high school guidance offices.

Early application for financial aid is encouraged. Priority dates for financial assistance for the regular academic year (fall and spring) will be on or before March 1 for new UTC students and April 1 for continuing students. Priority applicants may anticipate a notice of decision by the end of June. Priority dates for other terms are as follows: spring only—November 15; summer school—March 15. The Financial Aid Committee will consider applications throughout the school year for any available funds; however, qualified students who meet the priority deadlines will receive maximum consideration.

General Information

1. Although most scholarships are awarded to students who demonstrate strong academic achievement and proven need for financial assistance, the University maintains an academic merit scholarship program. A student wishing to apply for academic merit scholarship only (honorary stipend) should submit the UTC Application for Student Financial Aid.

2. All applications are held until the priority date at which time the Financial Aid Committee will review applications and award aid based on the following:
   a. Need for financial assistance
   b. Academic standing
   c. Character, leadership ability, and initiative

3. An undergraduate student must normally be enrolled for a minimum of 12 semester hours to qualify as a full-time student; 9-11 semester hours equals three-quarter time, 6-8 semester hours equal one-half time. A graduate student must normally be enrolled at least half time to qualify for financial assistance; 3-5 graduate semester hours equals half time; 6-8 graduate semester hours equals three quarter time; 9 or more graduate semester hours equals full time. NOTE: Awards are calculated according to student enrollment classification. A student who receives an award as a full-time, three-quarter time, or half-time student should not drop under the minimum number of hours for that classification. Awards are subject to cancellation and repayment if a student withdraws from school or drops hours which alter classification. Students receiving financial assistance will need to notify the Financial Aid Office of any proposed changes in their enrollment classification status.

When a student receiving financial assistance withdraws from school or drops hours during a refund period any refund due will be applied to the appropriate aid account.

In cases where a student who has received full payment of financial aid from the University or reduces his or her course load from full-time, three-quarter time or half-time, repayment by the student of unused funds may be necessary.

4. Students need to reapply for financial aid (scholarships, loans, grant, work) each year.

5. Students must be accepted for admission to the University or be eligible for continuation before financial aid awards will be made.

6. Students applying for federal financial aid must also complete application for the Basic Educational Opportunity Grant (BEOC), and the Tennessee Student Assistance Award (Tennessee residents only). Applications for both programs are available in the Financial Aid Office or from any high school counselor.

7. To qualify for federally funded programs (Educational Opportunity Grants, supplemental and basic, College Work Study, National Direct Student Loan, Nursing Loan and Grant) students must have established financial need, must be enrolled at least half-time and must be citizens, nationals, or permanent residents of the United States.

8. To be continued on financial aid students must be in good academic and social standing with the University.

9. Unless otherwise stated, all correspondence concerning financial aid should be addressed to:

Director of Financial Aid
The University of Tennessee at Chattanooga
Chattanooga, Tennessee 37401
Telephone:(615) 755-4677
## Scholarships

The University of Tennessee at Chattanooga scholarship program is available for entering and currently enrolled students. Scholarships range from an honorary stipend for academic merit to a maximum of full tuition and fees. Scholarships are competitive. Students with less than a 2.0 average will not normally be eligible for scholarships.

Many scholarships require the recipient to maintain a B average. College test scores, high school grade record, and demonstrated talent or leadership ability are the general criteria considered by the UTC Scholarships Committee. Most scholarship awards are to students who plan to enroll full-time. Any student receiving a scholarship award as a full-time student who finds it necessary to drop below the twelve-hour minimum should contact the Financial Aid Office.

Fifteen prestigious scholarships are awarded to incoming freshmen each year: five Andy Holt grants (sponsored by the UT National Alumni Association) for $750 each and renewable for four years; five Chancellor and five Leadership grants (sponsored by the UC Foundation) of $500 each renewable for four years. These grants are based on high academic achievement and require the maintenance of a 3.0 grade point average for the Holt award as a freshman and a 3.25 in subsequent years. A 3.0 grade point average is required of a Chancellor’s scholar. A 2.5 grade point average and active participation in campus activities are required for the Leadership scholarship. Applications (UTC Application for Student Financial Aid) are handled through the Financial Aid Office.

UT Alumni Community College scholarships are available to the top two students of each of the nine Tennessee community colleges. UT Alumni Valedictorian scholarships are available to the valedictorians of Tennessee high schools. These one-year $500 awards are available at all campuses of The University of Tennessee.

The Army ROTC scholarship program is designed to offer financial assistance to outstanding young men and women in the Army ROTC program who are interested in the Army as a career. Applicants should contact the Military Science Department at UTC.

Athletic grants-in-aid are available for various varsity sports. Applicants are recommended by coaches and the director of athletics and are approved by the UTC Scholarships Committee.

Music performance grants are available for the bands, singing groups and orchestra. Applications are made to the head of the Music Department.

## Grants/Scholarships

UTC and donor grants/scholarships are made on the basis of financial need and academic record. To be eligible, students must normally maintain at least a 2.0 grade point average. Awards are for one year and may be renewed on the basis of academic record, campus

### Table: Type of Aid and Eligible to Apply

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The table above provides a list of the types of aid available, their application processes, and the eligibility criteria for each.
citizenship, and demonstrated financial need. Students must reapply each year.

Educational Opportunity Grants

Supplemental Educational Opportunity Grant
Undergraduate students who are enrolled at least half-time and who have exceptional financial need are eligible for the federally funded Supplemental Educational Opportunity Grant (SEOG). Grants are made on a one-year basis but are available for four years as funds permit. The UTC Application for Student Financial Aid and the Family Financial Statement are required.

Basic Educational Opportunity Grant
The Basic Grant is federally funded and is awarded to students with need. Basic Grant applications are available in the Financial Aid Office. Students must reapply each year. Undergraduate students who are enrolled at least half-time are eligible to apply for the Basic Grant.

Student Loans

National Direct Student Loans
The National Direct Student Loan (NDSL) is available to qualified students in any class at The University of Tennessee at Chattanooga. Entering freshman students as well as upperclass and graduate students who clearly need financial aid for meeting educational expenses may be eligible for loans under the National Direct Student Loan program. Students must normally maintain a 2.0 to be eligible for loan funds.

An eligible undergraduate student may borrow to a maximum of $5,000. A maximum of $10,000 of NDSL indebtedness including graduate loans may be incurred. Payment of principal and interest on National Direct Student Loan is deferred until after withdrawal or graduation from the University. The loan carries interest of three percent (3%). The minimum annual repayment is $360 or ten percent (10%) of the total loan, whichever is greater.

The NDSL carries provisions for cancellation of portions or all of the loan for certain teaching assignments and armed forces assignments in areas of hostility. An exit interview is required in the student’s last semester of attendance.

Nursing Loan Program
The nursing loan program is federally funded. Loans are made on a funds available basis to qualified nursing students who have a demonstrated financial need and are in good standing with the University. Students will need to submit the UTC Application for Student Financial Aid and the Family Financial Statement. Students must normally maintain a 2.0 grade point average to be eligible for loan funds. Interest is three percent (3%). Loan principal and interest are payable after the student graduates or leaves school. A borrower is entitled to have up to 85% of the nursing loan cancelled for full-time employment as a registered nurse (including teaching, administration, and supervisory work) in many public and non-profit agencies, institutions, organizations, and health centers. An exit interview is required in the student’s last semester of attendance.

The University of Tennessee at Chattanooga Loan Fund, the Underwood Loan Fund and the Ansbach Loan Fund
From these loan funds, a student may borrow up to a maximum of $500 per year. Three percent (3%) interest is charged from the date of the note. The borrower has four years in which to repay the loan after graduation. The UTC Application for Student Financial Aid and the Family Financial Statement are required.

State Loans

The State of Tennessee has an educational loan program for residents of this state. Almost all states have programs whereby the student borrows through his or her home-town bank for funds to use at the college of his or her choice. These are government insured loans with no interest charged while the student is in college and are repayable after graduation or withdrawal from college.

Application is made through Banks and Credit Unions for these 7% simple interest loans.

Student Employment

The University participates in the college work-study program administered by the United States Office of Education. To be eligible for the college 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 is also available. The UTC Application for Student Financial Aid and the Family Financial Statement are required.

Employment opportunities provided under the institutional work study program also are offered to students who indicate a desire to work and who do not meet the financial need requirements for the college work-study program. Part-time employment, handled by the UTC Placement Office, is also available in private business, 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 orchestral performers. Eligible students would receive wages equal to the prevailing union contract. In-
interested students should contact the head of the music department.

Tennessee Student Assistance Corporation Program

Grants are made by the Tennessee Student Assistance Corporation to residents of the state of Tennessee who show a financial need as supported by a financial statement. Applications for these awards, which normally cover tuition costs, are available in the UTC Financial Aid Office, a high school counselor’s office or from TSAC, 707 Main St., Nashville, TN 37206. Students should make application before May.
The Curricula

An engineering student operates a computer
Academic Organization

Courses at The University of Tennessee at Chattanooga are offered within the following academic organization:

College of Arts and Sciences
- Art
- Biology
- Chemistry
- English
- Foreign Languages and Literatures
- Geosciences
- History
- Interdisciplinary Studies
  - American Studies
  - Environmental Studies
  - Humanities
  - University Scholars
  - University Studies
- Mathematics
- Music
- Philosophy and Religion
- Physics and Astronomy
- Political Science
- Psychology
- Sociology and Anthropology
- Theatre and Speech

College of Professional Studies:
- Computer Science
- Military Science
- Nursing
- Special Services/Upward Bound
- Division of Human Services
  - Criminal Justice
  - Home Economics
  - Human Services
- Social Work
- School of Business Administration
  - Business Administration
  - Business Education
  - Economics
  - Office Administration
- School of Education
  - Education
  - Health and Physical Education
- School of Engineering

Courses of Study

This section includes all courses currently approved for offering by the University. From this listing the particular courses to be given during each term are selected. Full information about the courses to be offered, including class times, is published in the Schedule of Classes for each semester or summer session.

Courses with odd numbers, such as 101, are usually offered in the first semester and those with even numbers, such as 102, in the second semester. In many departments the beginning freshman courses are offered both semesters.

A hyphenated number, such as 101-102, designates a year course, both semesters of which must be taken to secure credit. When consecutive numbers are given with one course listing, normally the first semester is prerequisite to the second. An r following a course number indicates that, because of difference in content, the course may be taken more than once for credit.

The number in parentheses following the course titles indicates the semester hours credit and, unless otherwise specified, the number of class hours the course meets each week.

Courses numbered from 001 to 099 are activity, service, or non-credit courses. A maximum of eight semester hours of credit in the ungraded courses in this group may be applied toward a degree.

Courses in the 100 to 199 sequence are primarily for freshmen; they may be taken by sophomores and juniors. Senior registrations for 100-level courses are not recommended.

Courses from 200 to 299 are open to sophomores, juniors, and seniors; those from 300 to 399 to juniors and seniors. Courses in the 400 to 499 series are open to seniors and graduates. In special circumstances a student may register for a course above the stated level when this is in accordance with departmental policy and is recommended by the advisor. However, only fully-qualified graduate students may enroll for courses numbered 500 to 699.

To accommodate students who are on the alternate system of the non-engineering cooperative education program, departments will offer the following course: 001 Cooperative Work Experience (0)

Student participation in the alternate semester system of cooperative education off-campus work experience.

Only students who have advance approval of the Division of Continuing Education and their major department will be enrolled in this course. See page 29 for additional information.
College of Arts and Sciences

Bert C. Bach, Dean

The College of Arts and Sciences offers majors in humanities, natural sciences, social and behavioral sciences, and interdisciplinary studies. The College is divided according to the following academic organization.

Art
Biology
Chemistry
English
Foreign Languages and Literature
  Classical Civilization
  Greek
  Latin
  Modern Languages
  French
  German
  Spanish
Geosciences
  Geology
  Geography
History
Interdisciplinary Studies
  American Studies
  Environmental Studies
  Humanities
  Institute for International Studies
  University Scholars Program
  University Studies
Mathematics
Music
  Cadek Department of Music
  Cadek Conservatory of Music
Philosophy and Religion
  Philosophy
  Religion
Physics and Astronomy
  Astronomy
  Physics
  General Science
  Political Science
  Psychology
Sociology and Anthropology
  Sociology
  Anthropology
  Institute of Archeology
Theatre and Speech

George A. Cress, Head
Robert G. Franke, Head
Benjamin H. Gross, Head
Thomas C. Ware, Head
Ronald G. Bohrer, Head
Norman R. King, Head
Eugene S. Lubot, Head
Peter Consacro, Head
Reed Sanderlin, Coordinator
Patricia Perfetti, Coordinator
Robert Fulton, Coordinator
Merilee Banoun, Director
James G. Ware, Head
Peter E. Gerschefski, Head
William R. Aaron, Coordinator
Donald S. Klinefelter, Head
George W. Spangler, Acting Head
David M. Brodsky, Head
Edward J. Green, Head
Edward E. Cahill, Head
Jeffrey L. Brown, Coordinator
David W. Wiley, Head
American Studies

See Interdisciplinary Studies

Anthropology

See Sociology and Anthropology

Art

Professor Cress, Head
Professor Collins
Assistant Professors Boudreau, LeWinter, White, Worley

The Art Department reserves the right to keep one example of the work of each student in each course.

Art (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses other than Art: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major:

40 hours Art including 105, 106, 205r, 206r, 207, 208, 323, 324, 333; 303 or 3 hours from 305, 309, 343; 6 hours from 111, 211, 212, 213, 413, 414, 431, 432

Participation in senior art show.

Electives to complete 128 hours

See page 160 for typical course of study in art education.

105, 106 First Year Drawing and Design (3.3)
Introductory work in drawing, composition, design and color organization. Primary emphasis on analysis and interpretation through use of the basic elements: line, value, color, and spatial determinants. Studio hours six. Courses are sequential; 105 prerequisite to 106

111 Introduction to Art (3)
Consideration of the formal elements, design principles, and technical factors of significance 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 periods. Designed to heighten perception, appreciation and enjoyment of the visual arts.

199r Special Projects (1-4)

205r, 206r Advanced Drawing (3,3)
Figure, landscape and still-life subjects, approached from the standpoint of their compositional and expressive possibilities. Experimentation with various media. Study of art anatomy. Studio hours six. Prerequisites: 105, 106.

207, 208 Painting and Composition (3,3)
Painting of still-life, landscape, and abstract compositions in oil and watercolor, emphasizing color relationships and composition as essential means of pictorial expression. Studio hours six. Prerequisites for art majors: 105, 106. Courses are sequential for art majors; 207 prerequisite to 208.

211 Prehistoric through Byzantine (3)
The arts of the prehistoric, ancient Near Eastern, Egyptian, Greek, Roman, Early Christian, and Byzantine periods.

212 Romanesque through Baroque (3)
Romanesque, Gothic, Renaissance, and Baroque art.

213 European Art from 1700 to the Present (3)
The more decisive styles and movements in western European art from the early eighteenth century to the present with emphasis on the most influential artists and groups of artists and their principal works.

222 Art Education (3)
Contemporary concepts of art education at the elementary level of instruction. General consideration of problems in selecting, organizing, guiding, and evaluating individual and group activities in art. Lectures, reading reports, discussion, and studio projects.
301 Art Structure (3)
Slides, demonstrations, and studio experience in drawing, painting, sculpture and other visual arts. Exposure to basic techniques and approaches, designed to increase the student's understanding of art, particularly of contemporary styles. For the non-art major. Course graded on satisfactory/no credit basis.

303 Two-Dimensional Design (3)
Experimentation with various elements of basic two-dimensional design. Studio hours six. Prerequisites: 105, 106.

305 Printmaking (3)
Work in linoleum block and woodcut, using black and white and multicolor techniques. Work in intaglio, including line etching, aquatint, and drypoint processes. Studio hours six. Prerequisites: 105, 106 or approval of department head.

306 Advanced Printmaking (3)
Work in intaglio, with special emphasis on multicolor printing techniques and experimental methods. Work in serigraphy, including screen printing using various stencil methods. Studio hours six. Prerequisites: 305 or approval of department head.

307r, 308r Advanced Painting (3)
Figure, still-life, and landscape composition in oil, watercolor, acrylic and mixed media. Problems in analytical study and creative interpretation. Studio hours six. Prerequisites: 207, 208.

309 Commercial Design (3)
The basic elements in advertising layout and illustration. Problems in magazine, newspaper, and poster advertising; exercises in the styles of lettering; problems in rendering aimed at improving technical facility. Studio hours six. Prerequisites: 105, 106.

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. Courses need not be taken in sequence.

333 Three-Dimensional Design (3)
Basic problems involving mass and space relationships. Experimentation with foundry techniques. Lectures on the historical development of sculpture.

334 Three-Dimensional Design (3)
Constructions dealing with the manipulation of volumes and surfaces using a variety of materials. Continued development of foundry techniques.

343 Introduction to Ceramics (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. Studio hours six. Prerequisites: 105, 106, or approval of department head.

344r Advanced Ceramics (3)
Development of student's individual style through use of design elements and technical skill. Kiln use and general laboratory techniques. Studio hours six. Prerequisite: 343.

413, 414 American Art from Pre-Columbian Times to the Present (3)
The visual arts of the United States, beginning with abrief survey of the arts of the American Indian from prehistoric times, followed by the arts of the European settlers in the Colonial period, and concluding in the first semester with the increasingly complex and diversified period from the end of the Revolutionary War through the Civil War. In the second semester the developments from about 1865 until the present are explored, emphasizing those artists whose works in painting, sculpture and architecture comprise the key monuments of the last one hundred years. (Either course may be taken independently.)

422 Three-dimensional Art for Elementary Education (3)
Introduction to techniques of woodworking, metalworking, ceramics and weaving. Individual research in new materials. Special emphasis placed on equipment and designs suitable for classroom use.

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. (Either semester may be taken independently.)

433r Sculpture (3)
Development of student's individual style in three-dimensional art. Emphasis on technical skills. Prerequisite: 333 or 334.

452 Research and Studio Problems in Elementary School Art (1-3)
Assigned projects in the history, theory and innovative approaches in art education at the elementary level. Emphasis on studio problems directed toward the individual's need.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

501r Special Topics in Art (3)

Astronomy

See Physics and Astronomy

Biology

Professor Franke, Head
Professors Freeman, Garth
Associate Professors Durham, Litchford, Nelson, Perfetti, Van Horn, Vredeveld
Assistant Professors M. Edwards, Kupor, Walton

The Department of Biology offers two degrees: a B.A. in biology and a B.S. in medical technology. The course requirements are listed below.

Students are urged to consider attendance at one of the two institutions affiliated with UTC's Department of Biology that offers field course experience in the life sciences: Gulf Coast Research Laboratory, Ocean Springs, Mississippi, offering courses in marine biology, and Tech-Aqua, Smithville, Tennessee, a field station offering educational research opportunities in inland, freshwater field biology.
Biology (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses other than biology (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major and related courses:
Mathematics 125,126 or 140,150 Recommended: 140,150, for prospective graduate students
Chemistry 121, 122, 351 and one other course
Physics 103, 104, or Geology 111, 112
32 hours of biology including 100,121,122,123 124; 11 hours at 300 level or above, at least 3 hours of which must be at the 400 level, and one course from each of the following areas:
Organismic Biology: One botany course chosen from the following:
207,208, or 352. One zoology course chosen from the following: 225, 226, 302, or 342. (Courses in organismic biology offered at Gulf Coast Research Laboratory may be substituted. Permission of department head required.)
Physiology: 304, 328, 405, 421, 422, Chemistry 466
Population Interaction: 306, 308, 352, 402, 416, 450
Genetics and Development: 301, 315, 325, 425, 426
Recommended electives: Mathematics 210 and Computer Science 121
2.0 average in major and related courses
Electives to complete 128 hours

See page 155 for typical courses of study in biology.

Medical Technology (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics, natural or applied science courses (6 hours; approved courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 125,126 or 140,150 Recommended: 140,150 for prospective graduate students
Physics 104, and 16 hours of chemistry including 121,122,351,352, or 241

Biology courses including 100,121,122,123,124,192,311, or 405,328 or 422; and one course chosen from 301, 315, 325, 425, and 426, and one course chosen from 240, 306, 308
30 hours from approved School of Medical Technology
Electives to complete 128 hours

See page 155 for typical course of study in medical technology.

100 Opportunities in Biology (0)
Introduction to the program and facilities of biological sciences at UTC and an exposure to related professional opportunities. Required of biology and medical technology majors. Lecture one hour.

121 Principles of Biology I (3)
Examination of major biological principles. Lecture three hours. Co-requisite: 123.

122 Principles of Biology II (3)
Examination of major biological principles. Lecture three hours. Prerequisite: 121, 123; Co-requisite: 124

123 Investigations in Biology I (1)
Laboratory investigations of significant biological ideas. Laboratory two hours. Pre-or co-requisite: 121.

124 Investigations in Biology II (1)
Laboratory investigations of significant biological ideas. Laboratory two hours. Prerequisite: 121, 123; Pre-or co-requisite: 122.

191 Functional Human Anatomy (4)
The structure of the human body as seen in its various levels of organization; cellular, tissue, organ and system. Lecture three hours, laboratory two hours.

192 Human Physiology (3)
Lecture studies on the physiological functions of the human body. Lecture three hours. Co-requisite: 193, Pre-or co-requisite: Chemistry 121.

193 Laboratory Studies in Human Physiology (1)
Laboratory studies of the physiological functions of the human body. Laboratory two hours. Pre-or co-requisite: 192, Chemistry 121.

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

200 Agriculture and Environment (3)
The study of how human beings have modified plants, animals, microorganisms and soil to serve their own purposes. Lecture three hours. Prerequisite: 122, 124 or equivalent.

207 Morphology of Non-vascular Plants (3)
A study of the form, reproductive processes, and evolutionary relationships of the non-vascular plants. Lecture two hours, laboratory two hours. Prerequisite: 122, 124 or equivalent.

208 Morphology of Vascular Plants (3)
A study of the form, reproductive processes and evolutionary relationships of the vascular plants. Lecture two hours, laboratory two hours. Prerequisite: 122, 124 or equivalent.

210 Microbiology (3)
Microorganism as related to disease, immunity, food preservation, and sanitation. Lecture two hours, laboratory two hours. Credit not allowed toward a biology or medical technology major. Prerequisite: 122, 124, Chemistry 121 or equivalent.

215 Human Genetics (2)
A study of human genetics and its practical application. Topics include sex chromosome anomalies, biochemical genetics, gene frequencies in populations, race, genetics of development and maldevelopment, multifactorial inheritance and teratology. Lecture two hours. Credit not allowed toward major.
225 Invertebrate Zoology (4)
A survey of the invertebrate phyla up to the chordates with an emphasis on their evolution, morphology, and physiological adaptations. Lecture three hours, laboratory two hours. Prerequisite: 122, 124 or equivalent.

226 Chordate Zoology (4)
The biology of the invertebrate chordates and vertebrate classes with an emphasis on their evolution, morphology, physiology, and behavior. Lecture three hours, laboratory two hours. Prerequisite: 122, 124 or equivalent.

240 Symbiosis (3)
The study of the intimate living arrangements between and among plants, animals, fungi, protists and monerans. Lecture three hours. Prerequisite: 122, 124.

301 Vertebrate Embryology (4)
Comparative development of the body from gamete formation through early organ formation in selected vertebrates. Consideration of advances in experimental embryology. Lecture two hours, laboratory four hours. Prerequisite: 122, 124, 226 or 302 recommended.

302 Comparative Anatomy of Vertebrates (4)
Structure and evolution of vertebrates. Dissection of dogfish, amphibian, and cat. Lecture two hours, laboratory four hours. Prerequisite: 122, 124 or equivalent.

304 Plant Physiology (4)
Vascular plant structure and function emphasizing physiological activities, such as photosynthesis, water relations, mineral nutrition, and hormonal action. Lecture three hours, laboratory two hours. Prerequisite: 122, 124, Chemistry 121, 122 or equivalent. Co-or Prerequisite: Chemistry 351.

306 Ecology (4)
The community concept studied with reference to structure, energy, cycles, and populations; the distribution of plants and animals with analyses of the factors involved. Lecture three hours. laboratory two hours. Field trips. Prerequisite: 122, 124 or equivalent, or approval of instructor.

308 Parasites of Man (4)
Life cycles, ecology and physiology of the parasites of human beings including the diseases caused by these organisms. Lecture two hours, laboratory four hours. Prerequisite: 122, 124 or equivalent, or approval of instructor.

311 Microbiology (4)
Taxonomy and physiology of microorganisms. Lecture two hours, laboratory four hours. Credit not allowed in both Biology 210 and 311. Prerequisite: 122, 124; Chemistry 122 or equivalent.

313 Environmental Education (3)
The process of developing attitudes and concepts related to the natural environment. Laboratory and field work emphasis on instructional strategies for applying conservation and ecological principles in the elementary school. Lecture three hours, laboratory and field trips two hours. Credit not allowed toward a biology or medical technology major.

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. Lecture three hours. Prerequisites: 122, 124 or equivalent.

325 Genetics (3)
The structure and function of the gene and chromosome; control of protein synthesis; mutation; genetic regulation; genetic transfer and recombination. Viruses, bacteria and higher organisms will be discussed. Lecture three hours. Prerequisite: 122, 124; Chemistry 122 or equivalent.
Courses Available at Gulf Coast Research Laboratory, Ocean Springs, Mississippi

141 Introduction to Marine Zoology (4)
General introduction to the marine environment with emphasis on local fauna. (Same as GCRL Z0141. Prerequisites: 122, 124.

341 Marine Botany (4)
Survey, based upon local examples of the principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification and ecology. (Same as GCRL BOT 341.) Prerequisites: 122, 124. Credit not allowed for 341 and 207.

361 Marine Invertebrate Zoology (6)
Study of marine invertebrates, especially those of the Mississippi Sound region. Emphasis placed on the structure, classification, phylogenetic relationships, and functional processes. (Same as GCRL Z0361.) Prerequisite: Fifteen semester hours of biology. Credit not allowed for 361 and 225.

Courses For Graduate Students Only

501r Current Issues in Biology (3)
Recent developments in different areas of biology are discussed. Permission of instructor.

580r Special Problems (3-4)
Individual special problems designed to offer the non-thesis student experience in research or to offer an opportunity for the thesis student to investigate problems not specifically associated with thesis. Prerequisite: approval of instructor.
Chemistry

Professor Gross, Head
Professor Boyer
Associate Professors Hayes, McNeely, Waddell
Assistant Professors Dalby, Lynch
Lecturer Yeakel

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 offers 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 is recommended for students who are planning for graduate study in chemistry. Both programs provide strong emphasis on theory and laboratory experience.

Chemistry (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses other than chemistry (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major and related courses:
Mathematics 140, 150, 160
Physics 103, 104
32 hours chemistry including 121, 122, 241, 351, 352, 371, 372, 436, 443, one hour of research; one additional hour of research or seminar
Electives to complete 128 hours
See page 158 for typical course of study in Chemistry (B.A.)

Chemistry (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses other than chemistry (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
German through 212
Mathematics 140, 150, 160, 250
Physics 103, 104, 411
40 hours chemistry including 121, 122, 241, 351, 352, 371, 372, 436, 443, one hour of research; one additional hour of research or seminar

Electives to complete 128 hours

See page 159 for typical course of study in chemistry (B.S.).

111 Chemistry and the Environment (3)
Basic concepts and methods of investigation with applications of chemical principles to the environment. Lecture three hours.

121 General Chemistry I (4)
Survey of principles and concepts involving structure, properties, and reactions of matter with experiments to demonstrate these principles. Lecture three hours, laboratory three hours. Prerequisite: two years of high school algebra or Mathematics 107. Some sections designated to require high school chemistry. Some sections designated as self-paced instruction.

122 General Chemistry II (4)
Survey of applications of principles to inorganic, organic, biological, analytical, and physical chemistry. Laboratory experiments in qualitative analysis. Lecture three hours, laboratory three hours. Prerequisite: 121.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

241 Quantitative Analysis (4)
Theory and practice of volumetric and spectrophotometric analysis applied to the study of stoichiometry and equilibrium. Lecture three hours, laboratory three hours. Prerequisite: 122.

342 Analytical Methods (4)
Advanced theory and practice of analytical chemistry including instrumental approaches to separation and analysis. Lecture three hours, laboratory three hours. Prerequisite: 241.

351, 352 Organic Chemistry (4, 4)
Study of compounds of carbon with emphasis on structure, synthesis, reactions, and reaction mechanisms with experiments to demonstrate principles and reactions. Qualitative organic analysis included in Chemistry 352. Lecture three hours, laboratory three hours. Prerequisites: 122; 351 is prerequisite to 352.

371, 372 Physical Chemistry (4, 4)
Thermodynamic, kinetic, and other descriptions of laws governing physical and chemical change. Lecture three hours, laboratory three hours. Prerequisites: Chemistry 241 or Chemistry 352, Physics 104, Mathematics 160; Chemistry 371 is prerequisite to Chemistry 372.

436 Advanced Inorganic Chemistry (3)
Advanced concepts in theoretical and descriptive inorganic chemistry with emphasis on valence bond, molecular orbital, and crystal field theories. Lecture three hours. Prerequisite: 371.
443 Instrumental Analysis (4)
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. Lecture three hours, laboratory three hours. Prerequisites: 241 and 351.

453 Advanced Organic Chemistry (4)
Advanced concepts of organic chemistry; principles of synthesis, structure, reaction mechanisms, and stereochemistry as applied to current research problems. Laboratory syntheses involve advanced techniques. Lecture three hours, laboratory three hours. Prerequisite: 352.

466 Biochemistry (3)
Survey of chemical aspects of metabolism in living systems including respiration, photosynthesis, lipid and amino acid degradation; significance of nucleic acids, nucleotides, amino acids, and proteins. Lecture three hours. Prerequisite: 352.

475 Polymer Chemistry (2)
Chemistry of synthetic polymers including mechanisms of polymerization and relation of properties to structure. Lecture two hours. Prerequisites: 352 and 371 or equivalent knowledge.

486r Seminar (1)
Participation seminar based on student papers, invited speakers, and other activities. Prerequisite: twenty-four semester hours of chemistry. Maximum credit two hours.

495r Honors (1-4)
Chemical research of exceptionally high quality. Admission by application. Maximum credit four hours.

497r Research (1)
Laboratory or library research on individual chemical problem under staff supervision. Seminar presentation of results. Student should confer with instructor prior to registration. Maximum credit two hours.

498 Individual Studies (1-4)
Individual or group projects. Credit may be earned through University, governmental, or industrial laboratory experience approved by the department. Maximum credit four hours.

499r Group Studies (1-4)
Special topic of a selected area of chemistry as specified in schedule of classes. Student should confer with instructor prior to registration.

501r Advanced Special Topics in Chemistry (3)
Primarily for teachers in M. Ed. program. May be repeated for maximum credit of six hours.

Classical Civilization

See Foreign Languages and Literatures

English

Professor T. Ware, Head
Professors Bach, Connor, Herron, Ramsey, Tinkler
Associate Professors Barrow, Consacro, Fulton, Richards, Sanderlin, Vallier, Dimis Weisbaker
Assistant Professors Jackson, Rosa Ann Moore, Shannon, Totten
Lecturers Meacham, Pierce, Waddey

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 Education: 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 27-29 for list of approved courses);

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses other than English; one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Foreign language through second college year
39 hours - English in addition to general education requirements including: English 203; 207 or 442r; 211 and 212; 213 or 214; 350 or 351; 360 or 361.
Senior seminar: English 400
At least nine (9) of the remaining hours must be in 300-and 400-level courses, with one course in English literature before 1800.
Twelve hours additional in supporting courses beyond the general education requirements: these courses chosen in conjunction with the academic advisor.
Electives to complete 128 hours
(For teacher certification see pages 111 and 116)

100 Written and Oral English for Foreign Students (6)
A rapid review of English grammatical structures and pronunciation
with intensive oral and written drill. Required during the first term of residence of all foreign students who are not excused from it on the basis of the English proficiency examination offered during each fall term. Meets ten hours a week.

101 Rhetoric and Composition (3)
The principles and practice of effective reading and writing. Frequent themes, exercises, selected readings. Attention to problems of grammar and usage. In rare instances exemption from English 101 may be recommended by the department.

102 Rhetoric and Composition (3)
Review of competencies stressed in English 101 with emphasis on the extended essay; use of research matter in writing; attention to diction, figurative and symbolic language, relationship of style and meaning. Prerequisite: English 101.

103 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.

199r Special Projects (1-4)
Individual or group projects, Maximum credit four hours for B.A. in English or B.S., Secondary Education in English. By permission of department head.

200 Practical English for the Professional (3)
Practice in the forms of writing and reading commonly used in various professions. Includes business letters and reports, technical and scientific reports, development of vocabularies, etc. Prerequisite: 101 or equivalent experience.

203 Literature of the Western World (3)
Selections from the Bible, from Creek and Latin classics in English translation, and from Medieval and Renaissance literature.

204 World Literature from the Renaissance (3)
Selections from English literature of the Renaissance and later periods and from European and American writers.

207 Shakespeare: an Introduction (3)

211 Survey of English Literature to 1800 (3)

212 Survey of English Literature since 1800 (3)

213 American Literature to 1855 (3)
Representative works from the Colonial and Romantic periods.

214 American Literature from 1855 (3)
Representative works from late 19th and 20th centuries.

228 Children's Literature (3)
A survey and evaluation of some of the best literature for children, with special attention to literature for pre-school and elementary school years. 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. Prerequisite: one lower level course in written communication in English.

230 Science Fiction (3)
Science fiction, detective fiction, fantasy fiction or other types studied in relation to the genre and to the literary value of the genre.

270 Introduction to Creative Writing (3)
Instruction and practice in writing imaginative literature for magazines and specialized publications.

300 Advanced Expository Writing (3)
Review and extension of basic composition skills designed to take the student beyond the competence demanded for satisfactory completion of an introductory course in English composition and to perfect skills in the several modes of expository, argumentative, narrative, and descriptive prose.

301 The Literature of England to 1300 (3)
Representative works in translation.

302 The Literature of England, 1300-1500 (3)
Representative works including Chaucer.

303 Early Renaissance Literature to 1600 (3)
Representative works from Tudor and Elizabethan periods.

304 Milton and the Seventeenth Century (3)
Representative works from the Jacobean and late Renaissance periods.

305 Age of Dryden, Pope and Swift (3)
Representative works from the early 18th century.

306 Age of Johnson (3)
Representative works from the mid and late 18th century.

317 English Romantic Period (3)
Representative works from the period 1789-1837.

318 Victorian Literature (3)
Representative works from the period 1837-1901.

319 English Transitional Period (3)
Representative works from the period 1880-1920.

320 Modern British Literature (3)
Representative works from 20th-century England.

332 Southern American Literature (3)
Emphasis on 20th-century authors.

333r Masterpieces of Asian Literature (3)
Study of representative works with emphasis on a country, period, or genre.

334 King James Bible as Literature (3)
Study of selected portions of the Old and New Testaments as literary masterpieces. Focus on study of the Bible as a central book in Western thought and as background for English and American literature.

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.

351 History of Literary Criticism (3)
Selected readings from representative literary critics.

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.

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. Prerequisite: 102.

370 Persuasion and Propaganda (3)
A study of the powers and abuses of persuasion, using historical and contemporary examples.
372 Editorial Writing and Editing (3)
Instruction and practice in analytical, interpretive, persuasive writing; concepts of editorial responsibility.

373 News Writing and Editing (3)
Instruction and practice in reporting news gathered from the traditional news beats (courts, county-city government, university, city, etc.). Prerequisite: permission of instructor.

374 Feature Writing (3)
Non-fiction writing for magazines and for specialized publications. Prerequisite: permission of instructor.

375 Creative Writing: Poetry (3)
Instruction and practice in the understanding and writing of poetry. Prerequisite: 270 or permission of instructor.

376 Creative Writing: Fiction (3)
Instruction and practice in the understanding and writing of fiction. Prerequisite: 270 or permission of instructor.

382 Religion and Literature (3)
A critical examination of the possible relationships between religion and literature; reading and discussion of selected literature from both disciplines.

395 Greek and Roman Tragedy in Translation (3)
See Classics 395.

396 Classical Mythology (3)
See Classics 396.

400 Seminar for Majors (3)
A seminar in the senior year designed to integrate the student's understanding of literature. Required of all English majors.

406 Approach to Literature (3)
Focus on the relationship between the subject matter learned as an English major and the subject matter to be used as a teacher of secondary English; emphasis on the difference between "content" specialist and high school teacher.

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.

412 Approach to Critical Reading (3)
Designed to increase the student's knowledge of the techniques involved in a close reading of literary texts, with special attention to the applicability of these techniques to teaching.

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.

421 Later English Drama, 1660-1800 (3)
Study of English drama from the Restoration through the 18th and 19th centuries.

422 Eighteenth-Century English Novel (3)

423 American Novel to 1900 (3)
Representative novels of American romanticism, realism and naturalism.

430 Nineteenth-Century English Novel (3)
Representative novels of the Victorian era.

431 Twentieth-Century British Novel (3)

433 Modern Poetry, British and American (3)

434 Twentieth-Century American Novel (3)

435 Modern Drama (3)
Selected plays of representative dramatists, with special emphasis on American drama since 1920.

442 Shakespeare: Special Topics (3)
Maximum credit six hours for the degree.

443 Major British Figures (3)
A reading course in the works of a major British writer. Maximum credit six hours for the degree.

445 Major American Figures (3)
A reading course in the works of a major American writer. Maximum credit six 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; Prerequisite: 360,361, or special permission of the department head.

471 Writing: Workshop (3)
An advanced seminar in writing with individual projects in imaginative, expository, or critical writing. Prerequisite: 2 writing courses above the 100 level.

495 Honors (2-4)
Maximum credit four hours.

497 Research (1-3)
Individual research projects by special permission of department head. Maximum three hours for B.A. in English or B.S., Secondary Education in English.

499 Group Studies (1-3)
Group study projects by special permission of department head. Maximum three hours for B.A. in English or B.S., Secondary Education in English.

Courses For Graduate Students Only

501 Special Topics in American and English Literature (3)
Maximum credit six hours for M. Ed. in English.

529 Literature in Elementary School, Junior or Senior High School (3)
Primarily for active teachers; consideration of suitable selections, effective methods of teaching, and the use of literature in relation to other subjects, such as history, geography, and social customs. Prerequisite: graduate status or special permission of the department head.

Environmental Studies

See Interdisciplinary Studies
### Foreign Languages and Literatures

**Associate Professor Bohrer, Head**  
**Professor Seay**  
**Associate Professor Campa**  
**Assistant Professors** Banoun, T. Jones, Sturzer, Tandy

The department offers the B.A. degree 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. Modern Language courses, taught in English, which deal with foreign literatures and civilizations, afford the non-foreign language student a broader perspective of other peoples and cultures.

There is no prescribed program which departmental majors should follow other than to meet the required number of hours for the respective major. Upper level courses are offered based on student needs.

#### Foreign Languages: French (B.A.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>2 approved courses in written communication in the English language, at least one at the freshman level</td>
<td>6</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>3 approved courses other than French: one from humanities, one from fine arts, and one from either</td>
<td>3 each</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>2 approved behavioral or social science courses</td>
<td>6</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>2 approved mathematics or natural or applied science courses</td>
<td>6</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>1 approved interdisciplinary or nonwestern course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major:**
- 22 hours French beyond 211, 212
- Electives to complete 128 hours

#### Foreign Languages: Greek and Latin (B.A.)

<table>
<thead>
<tr>
<th>Category</th>
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<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>2 approved courses in written communication in the English language, at least one at the freshman level</td>
<td>6</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>3 approved courses other than Classics and Latin: one from humanities, one from fine arts, and one from either</td>
<td>3 each</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>2 approved behavioral or social science courses</td>
<td>6</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>2 approved mathematics or natural or applied science courses</td>
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<tr>
<td><strong>E</strong></td>
<td>1 approved interdisciplinary or nonwestern course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major:**
- 21 hours Latin beyond 101, 102, 9 hours from Classics 307, 308, 395, 396, 397
- Electives to complete 128 hours

#### Foreign Languages: Latin (B.A.)

<table>
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</tr>
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<td><strong>A</strong></td>
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</tr>
<tr>
<td><strong>B</strong></td>
<td>3 approved courses other than Classics and Latin: one from humanities, one from fine arts, and one from either</td>
<td>3 each</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>2 approved behavioral or social science courses</td>
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</tr>
<tr>
<td><strong>E</strong></td>
<td>1 approved interdisciplinary or nonwestern course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major:**
- 22 hours Latin beyond 101, 211, 212
- Electives to complete 128 hours

#### Foreign Languages: Spanish (B.A.)

<table>
<thead>
<tr>
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<th>Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>2 approved courses in written communication in the English language, at least one at the freshman level</td>
<td>6</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>3 approved courses other than Spanish: one from humanities, one from fine arts, and one from either</td>
<td>3 each</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td>2 approved behavioral or social science courses</td>
<td>6</td>
</tr>
<tr>
<td><strong>D</strong></td>
<td>2 approved mathematics or natural or applied science courses</td>
<td>6</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>1 approved interdisciplinary or nonwestern course</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major:**
- 22 hours Spanish beyond 211, 212
- Electives to complete 128 hours

## Classical Civilization

**199r Special Projects (1-4)**  
Individual or group projects. *Maximum credit four hours.*
300 Scientific Terminology (2)
Designed to meet the needs of non-language students. Origin and derivation of English words in common scientific usage.

301 Greek Art and Archaeology (3)
A study of the development of art and archaeology from the Minoan-Mycenaean period through the age of classical Greece.

302 Etruscan and Roman Art and Archaeology (3)
The development of Etruscan and Roman art and archaeology including a brief survey of the Hellenistic period.

307 Ancient History (3)
See History 307

308 Ancient History (3)
See History 308

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. May be registered as English 395.

396 Classical Mythology (3)
A study of the origins of Greek and Roman myths, their importance in antiquity, and their influence on later literature. Maybe registered as English 396.

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.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

Latin

101, 102 Elementary Latin (3,3)
Elements of the language. Reading of Latin prose.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

201 Intermediate Latin (3)
Intensive review of basic Latin grammar; selections from Cicero. Livy, Pliny and Ovid. Prerequisites: Latin 101, 102 or two years of high school Latin. At the discretion of the department properly qualified students with only one year of high school Latin may be admitted.

202 Intermediate Latin (3)
Readings from Vergil's Aeneid. Prerequisite: Latin 201.

207 Cicero (3)
Selected readings from the Letters and Orations of Cicero.

208 Horace (3)
Selections from the Odes and Epodes.

310 Readings in Latin Literature (3)
A study of the development of Latin literature with selections from representative authors.

312 Latin Prose and Composition (3)

350r Latin Prose (3)
Sallust, Caesar, Tacitus, Seneca, and Petronius considered in different semesters. Maximum credit nine hours.

351r Latin Poetry (3)
Latin lyric poetry, Roman comedy, Latin satire and Lucretius considered in different semesters. Maximum credit nine hours.

425r Special Topics in Latin Literature (2)
Readings in a specific author, genre, or period.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

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. 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. 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. No foreign language credit.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours. No foreign language credit.

300 Masterpieces of French Literature in Translation (3)
Study of representative works from French literature in relation to their cultural context. 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. 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. 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. No foreign language credit.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

French

101, 102 Elementary French (4, 4)
Basic grammar, elementary reading, and conversation.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

211, 212 Intermediate French for Conversation (3, 3)
Grammar; reading in French with oral drills and conversation in French. Prerequisites: 101, 102 or two years high school French.

211x, 212x Intermediate French for Reading Knowledge (3, 3)
Grammar; reading in French with discussion in English. Prerequisites: 101, 102. May be substituted for 211, 212.

311, 312 Composition and Conversation (2, 2)
Intensive active practice in the language. Prerequisites: 211, 212 or approval of the department.

321 Advanced French Grammar (3)
Special problems in syntax, illustrative reading, composition. 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. 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. Prerequisites: 211, 212, or approval of the department.

401 r 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. By special arrangement with the head of the department and the instructor. Prerequisites: 211, 212 or approval of the department.

407 Seventeenth Century French Literature (3)
Prerequisites: 211, 212 or approval of the department.

409 Eighteenth Century French Literature (3)
Prerequisites: 211, 212 or approval of the department.

411 Nineteenth Century French Literature (3)
Prerequisites: 211, 212 or approval of the department.

413 Twentieth Century French Literature (3)
Prerequisites: 211, 212 or approval of the department.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

German

101,102 Elementary German (4, 4)
Basic grammar, elementary reading, and conversation.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

211, 212 Intermediate German for Conversation (3, 3)
Grammar and reading in German with oral drills and conversation in German. Prerequisites: 101, 102 or two years high school German.

211x, 212x Intermediate German for Reading Knowledge (3, 3)
Grammar and reading in German with discussion in English. Prerequisites: 101, 102. May be substituted for 211, 212.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

Italian

101,102 Elementary Italian (4, 4)
Basic grammar, elementary reading and conversation.

211, 212 Intermediate Italian for Conversation (3, 3)
Grammar, reading in Italian with oral drills and conversation in Italian. Prerequisites: 101, 102.
Spanish

101,102 Elementary Spanish (4, 4)
Basic grammar, elementary reading, and conversation.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

211, 212, Intermediate Spanish for Conversation (3, 3)
Grammar, reading in Spanish with oral drills and conversation in Spanish. Prerequisites: 101, 102 or two years high school Spanish.

211x, 212x, Intermediate Spanish for Reading Knowledge (3, 3)
Grammar, reading in Spanish with discussion in English. Prerequisites: 101, 102. May be substituted for 211, 212.

311, 312 Composition and Conversation (2, 2)
Intensive active practice in the language. Prerequisites: 211, 212 or approval of the department.

321 Advanced Spanish Grammar (3)
Special problems in syntax, illustrative reading, composition. 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. 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. 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 backgrounds included. Prerequisites: 211, 212 or approval 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. Prerequisites: 211,212 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, or on teaching methods. By special arrangement with the department head and the instructor. Prerequisites: 211, 212 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. Prerequisites: 211, 212 or approval of the department.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

Geosciences

Assistant Professor King, Head
Professor Wilson
Associate Professors Bergenback, McDowell

The Geosciences Department offers the Bachelor of Arts degree in geology and participates in programs leading to the Bachelor of Science degree in education and environmental studies.

Geology (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
Chemistry 121, 122

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

French or German through second college year

Major and Related Courses:
31 hours geology including 111,112,201,205,301,321,330,404,490
Biology 121,122 or Physics 103, 104
Mathematics 125,126 or 140, 150
Computer Science 121 or Mathematics 210
English 200
4 additional courses selected from: Biology 306, 315, 416, 450
Chemistry 241,351,352
Physics: any courses 200-level or above
Mathematics 150, 160, 210, or any more advanced courses
Computer Science 121, 231
Classics 300
Geography 100
Electives to complete 128 hours
See page 168 for typical course of study in geology.

Geology

111 General Geology: Physical (4)
Introduction to geosciences; earth materials, processes, and structures. Lecture three hours, laboratory two hours.

112 General Geology: Historical (4)
Origin of the earth and its geologic history, the concept of geologic time, the fossil record. Lecture three hours, discussion one hour.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.
201 Mineralogy (4)
Introductory study of common minerals, including their physical properties, crystallography, geochemistry, and mode of occurrence. Hand-specimen identification and microscopic, x-ray, and spectroscopic analysis of minerals. Lecture three hours, laboratory two hours. Prerequisite: Geology 111. Co-requisite: Chemistry 121.

205 Petrology (3)
Classification, composition and genesis of igneous, sedimentary and metamorphic rocks. Laboratory identification of hand specimens and thin sections. Lecture two hours, laboratory two hours. Prerequisite: 201.

208 Geomorphology (3)
Landforms and the processes responsible for their development. Emphasis on the occurrence and description of the various geomorphic regions of North America. Lecture two hours, laboratory two hours. Field trips. Prerequisite: 111.

301 Structural Geology (3)
Mechanics of rock deformation with emphasis on the resulting structures and tectonic features. Lecture two hours, laboratory two hours. Prerequisite: 111.

304 Regional Geology of the United States (3)
Geologic provinces of the United States from the standpoints of lithology, structure, process, and stage. Prerequisite: 111; recommended: 208, 301.

307 Geology of Tennessee (3)
Geologic resources, structure and history of Tennessee and adjacent areas. Lecture and field trips. Prerequisite: a previous course in geology.

321 Paleobiology (3)
Characteristics of the fossil record, principles of taxonomy, population analysis, interpretation of faunal assemblages, and biostatigraphy. Morphology and time range of major fossil groups. Lecture two hours, laboratory two hours. Prerequisites: Geology 111, or Biology 121, 122, or equivalent.

330 Stratigraphy and Sedimentation (4)
Composition, correlation, and paleoenvironmental reconstruction of sedimentary rocks. Stratigraphic classification. The facies concept. Environments of deposition. Sedimentologic models. Analytical laboratory and field work. Lecture three hours, laboratory three hours. Prerequisites: 111, 112, 205, 321.

345 Geohydrology (3)

402 Paleoecology (3)
Methods of reconstruction of relationships between ancient organisms and their physical and organic environments. Prerequisite: Geology 321, or Biology 225, or equivalent.

404 Geologic Mapping (3)
Field study of sedimentary and crystalline rocks, with approximately equal emphasis. Techniques of both small-scale and large-scale mapping of a variety of rock types and structural features. Requires drafting, report writing, and weekend field work. Prerequisite: approval of instructor.

405 Principles of Geochemistry (3)
Origin and distribution of the elements. Applications of chemistry to geological problems. Prerequisites: 201 and 205 and one year of chemistry or equivalent.

420 Energy from the Earth (3)
Origin, occurrence, and chemical and physical characteristics of fossil fuels, nuclear raw materials, and geothermal resources. Exploration, recovery, and processing techniques. New technological approaches for utilization of fossil fuels. Lecture three hours. Prerequisites: Geology 111, Chemistry 121; does not count toward the geology major.

425 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. Lecture three hours. Prerequisites: Geology 111, Chemistry 121.

431 Sedimentary Petrology (3)
Genesis of sedimentary rock clans including arkose, graywacke, orthoquartzite, and carbonates. Microscopic analysis and field studies. Prerequisite: 330 or equivalent.

451 Geologic Time (3)
Development of principles and concepts in the geological sciences from the time of Aristotle to the present; emphasis on geologic time scale. Structured with attention to education majors.

460 Environmental and Urban Geology (4)

490 Senior Seminar (2)
A culminating senior experience giving students an opportunity to exercise judgment in solving geological problems.

497r Research (1-4)
498r Individual Studies (1-4)
499r Group Studies (1-4)

Geography

100 World Regional Geography (2)
Spatial patterns of the earth's physiographic features, and relationships of these patterns to political, cultural and economic development.

101 Physical Geography (3)
The physical environment with emphasis on processes that influence the distribution and pattern of landforms, water, climate, vegetation and soil.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

202 Geography of Latin America (3)
Middle and South America, stressing the interrelationship of physical environment and the impact of the physical environment on people.

203 Geography of Europe (3)
Europe with emphasis on physical geography and its influence on human activities.
204 Geography of North America (3)
Topical and regional study of the physical, social, and economic structure of Anglo-America. Particular emphasis given to the growth and development of the United States.

205 Geography of Asia (3)
Introduction to the physical and cultural geography of Asia, excluding the Soviet Union.

206 Weather and Climate (3)
Weather elements, wind circulation, air masses, fronts, and general climatic regions of the world. Daily weather maps and methods of forecasting.

221 Maps and Map Interpretation (3)
Nature and use of maps, with particular reference to the construction of map projections. Use of special maps and the interpretation of aerial photographs.

407 Environmental Conservation (3)
Theories, methods and practices of environmental management and resource utilization. Emphasis on soil, forest, water, mineral and human resources.

409 Economic Geography (3)
Economic activities and their relation to the physical environment. Location of the world’s major types of products, agriculture, manufacturing, mining, forest products, and fisheries.

415 Urban Geography: Urban Land Development and Redevelopment (3)
Settlement of the land, and use, misuse and reuse of urban land in a changing society. May be registered as Sociology 415.

465 Remote Sensing and Imagery Analysis (3)
Principles of aerial and satellite photography and infra-red, multi-spectral, and microwave sensing. Interpretation of remotely sensed data, including application to problems in avairy of environmental sciences. Lecture two hours, laboratory two hours. Prerequisites: senior standing and approval of instructor.

497r Research (1-4)
498r Individual Studies (1-4)
499r Group Studies (1-4)

German
See Foreign Languages and Literatures

Greek
See Foreign Languages and Literatures

History
Associate Professor Lubot, Head
Professors Bowman, Harbaugh, Masterson
Associate Professors Deierhoi, Ingle, Linnemann, Moore, Ward, Wright
Assistant Professor Russell

History (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses other than history; one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than history (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Foreign language through second college year

Major:
33 hours History including 101,102, 301, and either 400 or 401; no more than one-half of the history courses at the 100 and 200 level
12 hours of cognate courses beyond the general education requirements; 6 in the humanities and fine arts and 6 in the behavioral and social sciences; 6 to be taken at the 300 level or higher.

Courses suitable as cognate courses will vary according to a student’s program and will be determined by a student’s adviser. Electives to complete 128 hours

See page 169 for typical course of study in history.

101,102 Emergence of the Modern World (3,3)
A survey of the processes, ideas, and events that have shaped our contemporary world, emphasizing modernization and industrialization; imperialism, nationalism, and competing ideologies in a world setting. First semester concentrating on the period from approximately 1300-1800; second semester extending from 1800 to the present.

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.

12r 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.

19r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

203, 204 United States History (3,3)
A survey of American history; a brief review of early Colonial period; more intensive study beginning with 1763; special attention given to national leaders, their ideas and contributions, as well as to the main currents and developments in American life. First semester study extending to 1865.

207 Introduction to Asian Civilizations: Middle East and India (3)
A survey of the major trends of Islamic and Indian history. Emphasis placed on traditional cultural values, periods of power and greatness, problems of modernization, and recent developments. Students should gain perspective on such current issues as the Arab-Israeli conflict and the oil crisis.

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.
211 History of Subsaharan Africa to 1880 (3)
Geography and peoples of Africa; examination of traditional African society and culture; Sudanic and West African empires; Arabic and Islamic impact on Africa; early European exploration and expansion into Africa; the slave trade; growth of commercial centers; later African states.

212 History of Subsaharan Africa, 1880-Present (3)
Partition of Africa; establishment and functions of European colonial systems; rise of African nationalism and resistance movements; the African response to social, political, and economic modernization; independence and Pan-Africanism; examination of colonial legacies and European impact on traditional African society.

215, 216 Latin American History (3,3)
A survey of Latin American history from the time of discovery to the present, emphasizing economic, political and social institutions as well as cultural developments; the first semester, the colonial period (to about 1825); the second semester, since independence.

301 Seminars in History (3)
An introduction to historical interpretation and analysis through an examination of specific topics in American, European, or non-Western history. Required of both those majoring in history or secondary education in history, but other students welcome.

307 Ancient History I (3)
A study of ancient Near Eastern civilizations with emphasis on Egypt, Babylonia, and Assyria. Followed by the history of Greece from the Minoan-Mycenaean age to the era of Alexander the Great. May be registered as Classics 307.

308 Ancient History II (3)
A continuation of History 307, beginning with Alexander the Great and tracing the history of Rome from Republic to Empire to the death of Constantine. May be registered as Classics 308.

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.

313 The Age of the Renaissance (3)
Economic, social, artistic, and political developments, 1300-1500; Italian Humanism; Christian Humanism; and ferment in the Church.

314 The Age of the Reformation (3)
Religious, political, social, and economic factors involved in the Protestant and Catholic Reformation in the 16th century.

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.

316 The Enlightenment (3)
Intellectual developments from the mid-17th century through the 18th century, scientific revolutions, virtuosos and the Philosophes.

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.

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.

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 cold war.

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.

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.

331 Colonial North America (3)
The Colonial Period of American history, from the beginnings to 1776; background of English colonization of America, colonial settlements, the development of colonial society and institutions.

333 U.S., 1776-1815 (3)
Founding the American nation. The Revolutionary, Federalist, and Jeffersonian periods of American history.

334 U.S., 1816-1850: The Middle Period (3)
The westward movement and the beginnings of industrialism, Jacksonian democracy, slavery, and Manifest Destiny through the war with Mexico and the Compromise of 1850.

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.

336 The Emergence of Modern America (3)
The United States from the end of the Civil War to 1900.

337,338 Twentieth Century American History (3,3)
The United States in the 20th century; a survey of domestic developments and foreign relations from 1898 to the present. Second semester starting c. 1939.

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.

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.

346 Afro-American History (3)
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.

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.

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.

368 The Far East in Modern Times (3)
East Asia since the mid-19th century and the impact of the West; the Opium War, modernization, the Chinese Revolution of 1911, Japanese expansion, Pearl Harbor and Hiroshima, MaoTse-tung and the Chinese Communists.
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.

372 South Asia in Modern Times (3)
The sunset of the British Raj in India; Gandhi, Nehru, and the Indian independence movement; the partition between India and Pakistan; post-independence years including the government of Indira Gandhi.

385r National History (3)
A course dealing with a selected national history. By special arrangement with the department head and instructor. Specific prerequisites to be given when the topic is announced.

400 Historical Writing: Theory and Practice (3)
Readings in the works of selected, representative historians from the ancient Greeks to contemporary Americans: Herodotus to Hofstadter. Designed to provide an introduction to the development of Western historiography and some familiarity with the great figures and works of our historical tradition. Primarily for senior majors in history and others interested in the development of historical writing.

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.

411, 412 American Intellectual and Social History (3,3)
Survey and analysis of American assumptions, social attitudes, and institutions, and their impact on American life. First semester coverage extends to 1865.

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 development designed to provide perspective on problems of modern society.

417, 418 Diplomatic History of the U.S. (3,3)
The history of American foreign relations from their colonial origins to the present.

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.

420 History of the American Presidency (3)
A seminar on the nature, development and problems of the American presidency in historical context, with emphasis on those presidents who have contributed significantly to its range and scope, from Washington to Carter. Prerequisites: 203 and 204, or permission of instructor.

421 Changing Interpretations in American History (3)
An analysis of changing interpretations of selected topics in American history, from the Puritans to the present. Prerequisites: History 203, 204 or permission of instructor.

461 European Diplomatic History (3)
From the defeat of Napoleon to the Cold War; attempts to create a European system, the failure of the Congress system and the operation of the balance of power; the diplomacy of imperialism; World War I and II; 20th-century attempts at a world order.

463 Social and Economic History of Europe (3)
The impact of the social and industrial revolutions on the societies of Europe: agrarian conditions, urbanization and the population explosion, living standards, status and class and social movements.

465 The History of European Thought, 1600-1789 (3)
A study of the European mind from the rise of modern science through the intellectual revolution of the Philosophes. Special attention to the development of empiricism and rationalism, to Hobbesian absolutism and Lockean liberalism, to the origins of sociological method in the work of Montesquieu, to currents of radical scepticism and Deism in the Enlightenment, to 18th-century origins of Romanticism, and to the development of the idea of progress in the French Enlightenment.

466 The History of European Thought, 1789 to the Present (3)
A study of the European mind from the French Revolution to the present, emphasizing intellectual responses to the Industrial and French Revolutions and to the impact of World War I and the growth of mass culture. Special attention to the philosophical and historical origins of Conservatism, Utopian Socialism, Marxism, Darwinism, Nihilism, Freudianism, and Existentialism. Students encouraged to undertake research projects utilizing interdisciplinary techniques in the history of ideas.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-3)

498r Individual Studies (1-3)

499r Group Studies (3)

Courses for Graduate Students Only

501r Special Topics in History (3)
Courses on selected topics in American, European, or non-Western history, designed for graduate students pursuing the M.Ed, in secondary education.

508r Historical Problems (1-6)
Directed readings and study in historical problems. Prerequisites: graduate status and permission of instructor. Maximum credit six hours.

Home Economics
See Division of Human Services

Humanities
See Interdisciplinary Studies

Interdisciplinary Studies

Associate Professor Consacro, Head

The Office of Interdisciplinary Studies coordinates a number of programs leading to baccalaureate degrees as well as several other non-degree programs. Because of their interdisciplinary nature, these programs draw upon the varied resources of a number of departments.
American Studies

Associate Professor Sanderlin, Coordinator

The American Studies major is a Bachelor of Arts degree consisting of two parts: 1) a core curriculum required of all majors and 2) a concentration of study in one of the following areas: American literature, American history, business-economics, philosophy and religion, political science, or sociology-anthropology. American Studies courses are described below: All other required courses are described in the listing of the other departments named.

American Studies (B.A.)

General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses; one from humanities, one from fine arts, and one from either (3 hours each; approved related courses below may apply)

Category C
2 approved behavioral or social science courses (6 hours; approved related courses below may apply)

Category D
2 approved mathematics or natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours; approved related courses below may apply)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign Language through second college year.

Major:
The following core courses are required of all majors:

American Studies 200: Introduction to American Studies 3
American Studies 400: American Studies Seminar 3
American Studies 499r: Topics in American Studies 3
Computer Science 100: Computers and Problem Solving 2
Economics 101, 102: Principles of Economics 6
Education 301: History of Education in U.S. 3
English 213, 214: American Literature 6
Geography 204: Geography of North America 3
History 203, 204: United States History 6
Mathematics 210: Introductory Statistics 1
Philosophy 360: American Philosophy 3
Political Science 131: Problems in American Politics 3
Religion 236: Religion in American Life 3
Sociology 151: Principles of Sociological Analysis 3

*May also be fulfilled by BusA 211 for those in Business-Economics concentration.

Six (6) semester hours selected from the following courses:

Art 413, American Art from Pre-Columbian times to 1865; Art 414, American Art from 1865; Music 212, America’s Musical Heritage; Music 317, Survey of American Jazz.

1 Each major must complete 18 semester hours of approved courses in one of the following concentrations:


b American Literature: English 332, 370, 423, 434, 435, 445r
d Philosophy and Religion: Philosophy 353; Religion 232, 337, 362, 401, 467, 482, 491 r
e Political Science: 213, 214, 222, 234, 235, 322, 331, 332, 333, 431 r
f Sociology-Anthropology: Anthropology 333r*, 334r*, 425r*; Sociology 215, 305, 345, 365, 394, 400r

2 An additional 9 hours from the list of approved courses above outside of one’s area of concentration.

See page 155 for typical course of study in American Studies.

199r Special Projects (1-4) Individual and Group Studies

200 Introduction to American Studies (3)
An introduction to the rationale of American studies, with emphasis upon selected readings which illustrate some of the most significant approaches within the discipline. Also, an introduction to the methodologies of various disciplines of the areas of concentration and an examination of their applicability within American Studies.

400 American Studies Seminar (3)
Advanced level discussion of the interrelationship of methodologies and some research project in which each student applies the methodology of his area of concentration to a broad cultural phenomenon within American life. Prerequisite: 200.

495 Honors (1-4)
Maximum credit four hours.

497r Research (1-4)
Prerequisite: approval of the coordinator and the department head.

498r Individual Studies (1-4)
Prerequisite: approval of the coordinator and the department head.

499r Topics in American Studies (3)
Special topics, themes, and studies.

*Only when appropriate topics offered.
Environmental Studies

Associate Professor Perfetti, Coordinator
Professors: Franke, Freeman, Wilson
Associate Professors: Brown, McNeely, Pate

The environmental studies major consists of two parts: 1) a core curriculum required of all majors and 2) a concentration of study in one of the following areas: biology, chemistry, engineering, geosciences, mathematics, physics, or sociology/anthropology. Environmental Studies courses are described below; all other required courses are described in the listings of the other departments named.

Environmental Studies (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than discipline concentration (6 hours; approved related courses below may apply)

Category D
2 approved mathematics or natural or applied science courses other than discipline’s concentration area (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours; approved related courses below may apply)

Health and Physical Education 021 plus one additional semester physical education activity

Major:
The following core courses are required of all students:
Biology 306
Computer Science 121
Economics 101
Engineering 311
Environmental Studies 150, 360, 361, 390, 401, 402, 490
Mathematics 140-150\(^1\), 210\(^2\)
Political Science 101

In addition, each major must complete the requirements for one of the following concentrations.

Biology
Chemistry 121, 122, 241, 351
Biology 121, 122, 311, 332
Two courses from Biology 207, 304, 352
Two courses from Biology 225, 226, 342

Chemistry
Biology 121, 122
Chemistry 121, 122, 241, 342, 351, 352, 443
3 hours chemistry elective

Majors in the biology or sociology-anthropology concentration may substitute Math 125-126

\(^1\)This requirement may be satisfied by a concentration-related statistics course if one is available.

Engineering Science
Biology 122
Chemistry 121, 122, 241
Engineering 103, 104, 225, 272, 303, 307, 322, 325, 431
Mathematics 160, 250, 260
Physics 231, 232

Geoscience
Chemistry 121, 122
Physics 318
Geology 111, 201, 205, 208, 301, 345, 404, 425, 460
Geography 101, 206, 221, 407, 465

Mathematics
Computer Science 231
Mathematics 160, 195, 250, 260, 308, 350, 407, 408, 412; one course from 414, 445, 460, or 470
1 two semester sequence from biology, chemistry, engineering, geology, physics

Physics
Chemistry 121, 122
Mathematics 160
Physics 103, 104, 231, 232, 12 hours from 301, 303, 304, 307, 310, 318, 324, 411, or 412

Sociology-Anthropology
Sociology 151, 314, 394; either Anthropology 152 or 208; either Anthropology 300 or Sociology 312; additional 15 hours from Anthropology 211, 335, 356, 410, 425r and Sociology 209, 219, 305, 317, 318, 331, 340, 400r, 415, 430, 440, 455r (minimum 9 hours selected from these additional courses at 300-400 level) 1 two semester sequence from biology, chemistry, geology, or physics

Electives to complete 128 hours.

See page 167 for typical courses of study in environmental studies.

150 Introduction to Environmental Problems (3)
People’s dependence and effect on the natural environment. Problems related to population size, structure and distribution; energy sources; environmental threats to the human population; social, political and economic changes as related to the above.

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

360 Environmental Monitoring and Survey (3)
Monitoring methods for air and water quality: to include sample taking, analytical testing and observation of procedures practice in established community laboratories. Lecture two hours, laboratory three hours.

361 Environmental Survey Methods (3)
Field survey methods for compiling of botanical, zoological, geological and archeological data. To include mapping, sampling and recording. Lecture two hours, laboratory three hours.

390 Environment in Human Behavior (3)
Psychological, social, and cultural factors which affect the emergence and perpetuation of environmental problems and which enter plans for solution. Attention to the specifically psychological or sociocultural pollutions which are effects of modern urban life such as over-stimulation, stress, noise, crowding and alienation. Consideration of work, residential, recreational and other institutional settings as they affect behavior.
401 Environmental Laws 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 of environmental impact statements. Prerequisite: senior standing.

402 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. Prerequisite: 401.

490 Environmental Studies Senior Project (3)
A group project involving analysis and solution of an environmental problem; oral and written presentation of progress and final results required. Prerequisite: senior standing.

495r Honors (1-4)
Maximum credit four hours.

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

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

499r Group Studies (1-4)

Humanities

Associate Professor Fulton, 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 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major and related courses:
45 hours of approved program studies related to a cultural area: American, European, non-Western or to a subtopic within these areas. Achievement of specific knowledge of chosen area and comprehension of human experience: religious, intellectual, aesthetic, linguistic and social. 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.

Humanities 490: Senior Educational Experience. Electives to complete 128 hours.

See page 170 for typical course of study in humanities.

199r Special Projects (1-4)
Individual and group studies.

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. Prerequisite: senior standing, final semester. May not be taken concurrently with 497r.

495r Honors (1-4)
Maximum credit, four hours.

497r Research (1-4)
Prerequisite: approval of the coordinator and the department head.

498r Individual Studies (1-4)
Prerequisite: approval of the coordinator and the department head.

499r Group Studies (1-4)

Institute for International Studies

Assistant Professor Banoun, Director

The Institute for International Studies provides various possibilities for pursuing an interest in the culture, business, industry, or government of the international community. These include credit and non-credit courses, travel-study programs, lectures, advisory services and others. The Institute also coordinates a number of activities and services for foreign students on The University of Tennessee at Chattanooga campus.

Current offerings are listed in the schedule or are publicized through the media.
University Scholars Program

Associate Professor Consacro, Head
Participating Faculty 1978-79
Associate Professor Fulton (English)
Assistant Professor Renee Cox (Music)

University Scholars are those students who have been awarded membership in the University's four-year honors program. The courses listed below are restricted to University Scholars.

101,102 Humanities I & 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. Satisfies general education requirement of Category A and Category B.

103,104 Fine Arts I & II (3, 3)
Studies in the fine arts from antiquity to the present with attention to relevant aesthetic theory. Emphasis on major works of music and the visual arts. Museum visits and attendance at performances required. Satisfies general education requirement of Category B.

105 A Critical Introduction to the Social Sciences (3)
The theoretical nature and meaning of central concepts and procedures. Emphasis on underlying implications, commonalities and differences between disciplines of economics, politics, psychology and sociology.

106 Critical Case Studies in the Social Sciences (3)
A critical application of theoretical critiques to selected case studies in economics, politics, psychology and sociology. Broad and intensive analysis of such research areas as mental health, racial differences, propaganda, social planning, etc., in terms of implications of the commitments and data claims of the different social sciences. Prerequisite: 105. Together with 106 satisfies general education requirement of Category C.

107, 108 Modern Science and Technology I & II (3, 3)
Selected topics in science and technology designed to illustrate methods, purposes, philosophical foundations and implications of scientific and technological research. Consideration of societal influences and restraints on and cultural impact of science and technology. Laboratory included. Satisfies general education requirement of Category D.

109 Mathematics in the Modern World (3)
The nature of mathematics; some basic concepts from modern algebra, probability and statistics, geometry and number theory; and some applications of mathematics, including computer programming in Basic.

19r Interdisciplinary Seminars (1-4)
Specific topics, themes, and subjects for which the interdisciplinary approach is especially useful.

49r Interdisciplinary Seminars (1-4)
Specific topics, themes, and subjects for which the interdisciplinary approach is especially useful.

For current offerings see schedule of classes.

Mathematics

Professor J. Ware, Head
Professor Jayne

Associate Professors C. Brown, Joel Cunningham, W. Edwards, Hutcherson, Kirk, McIntosh, D. Nymann, Sellers

Assistant Professors Clark, Detmer, Rozema, Smullen
Mathematics Learning Center Coordinator, Higgins

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 relatively new degree program designed to examine the growing influence of mathematics in business and industrial practices. The student must select an option in one of the following areas: actuarial science, business administration, computer science, systems analysis.

It is also possible for a student to receive a B.S. degree in education with a teaching area in mathematics. (See Education listing.)

Applied Mathematics (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours; approved related courses below may apply)

University Studies

Associate Professor Consacro, Head

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.
Category D
2 approved natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours; approved related courses below may apply)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics through 260 and 195, 308, 350, 407, 408, 412, 414, 424
2 Mathematics courses elected from 303, 321, 322, 418, 440, 445, 450, 454, 460, 470
Economics 101, 102; Computer Science 121; Engineering 311

One of the following options:
1. Actuarial Science: Business Administration 201, 202, 302, 321, 336, 337; Business Administration 450 or Economics 460; two electives from: Business Administration 303, 304, 422, Economics 301, 324, 429, Computer Science 231.
2. Business Administration: Business Administration 201, 202, 302, 311, Economics 324, 429; Business Administration 450 or Economics 460; two electives from business administration or economics 300-400 level courses (excluding Business Administration 356).
3. Computer Science: Computer Science 122, 201, 231, 251, 252, 280, 301; two electives from Computer Science 300-400 level courses.
   A student may not elect both the business administration and the actuarial science options.

2.00 average in all 300, 400-level Mathematics courses
Electives to complete 128 hours.

See pages 171-172 for typical courses of study in applied mathematics.

Mathematics (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved natural or applied science courses (6 hours) excluding Physics 101, 102, 103, 104

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major and related courses:
Computer Science 121
Mathematics through 260, 195 and 18 hours 300-and 400-level mathematics courses including 321, 350, but excluding 451 Physics 230, 231

2.00 average in all 300, 400-level mathematics courses
Electives to complete 128 hours.

See page 171 for typical course of study in mathematics

107 Algebra (2)
Review of high school algebra; selected topics from college algebra. Graded on satisfactory/no-credit basis. Lecture and laboratory.

115,116. Fundamental Concepts of Mathematics (3, 3)
Mathematics as a postulational system; nature of proof; the history and development of mathematical ideas. Prerequisites: one unit high school algebra. Beginning fall 1979 two units of college preparatory mathematics. Mathematics 115 is prerequisite to 116. Not open to mathematics majors. Primarily for education majors.

120 Introduction to Contemporary Mathematics (3)
A study of the nature and techniques of mathematics, including such topics as number systems, modern geometry, probability, the history and development of mathematical ideas. Prerequisites: two units of college preparatory mathematics.

124 Elementary Linear Programming (1)
Linear programming and other selected topics covered in Mathematics 125 which would not be covered in a traditional college algebra or precalculus course. Includes use of mini-computer. By permission of the department may be taken in lieu of 125 by transfers and others with sufficient background. May be taken concurrently with 126. Credit not allowed in both 124 and 125.

125,126 Finite Mathematics with Calculus (3, 3)
Designed for students of the behavioral, biological and managerial sciences. Relations and functions, inequalities, matrix theory and systems of linear equations, linear programming, introduction to probability, introductory differential and integral calculus with applications. Includes use of mini-computer. Prerequisites: two units of high school algebra and acceptable test scores or 107. 125 is prerequisite to 126. Not open to mathematics majors. Credit is not allowed in 125 after 140, and in 126 after 150.

140 Pre-Calculus Mathematics (4)
Functions and their graphs; trigonometric, logarithmic, and exponential functions; inverse functions; parametric equations; complex numbers; polar coordinates; solutions of systems of linear equations; mathematical induction; inequalities; partial fractions; progressions; binomial theorem; other selected topics. Prerequisites: three units of college preparatory mathematics and acceptable test scores or 107. Credit not allowed in 125 after 140.

150 Calculus I with Analytic Geometry (4)
Topics in analytic geometry; limits; derivatives of algebra functions and their applications; integrals of algebraic functions. Prerequisites: four units of college preparatory mathematics and acceptable test scores or 140. Credit not allowed in 126 after 150.

160 Calculus II with Analytic Geometry (4)
Additional topics in analytic geometry; applications of integration; transcendental functions; hyperbolic functions; techniques of integration, infinite series. Prerequisite: 150.

195 Foundations of Mathematics (3)
Introductory concepts of sets, functions, equivalence relations, ordering relations, logic, methods of proof, and axiomatic theories. Prerequisite: 150. This course is a prerequisite for 321, 322, 350, 412 and 452. Mathematics majors should enroll in it during their freshman or sophomore years.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

210 Introductory Statistics (3)
An introductory course suitable for students in a variety of disciplines, including such topics as: nature, sources, collection, and presentation of data; measures of central tendency; probability; sampling distributions; hypothesis testing; regression and correlation; analysis of variance; other non-parametric statistics. Prerequisite: two years of high school algebra or 107.
225 Topics in Finite Mathematics (3)
Designed for students in the behavioral, biological, managerial, and computer sciences. Topics taken from probability, Markov processes, linear programming, game theory, and other topics in finite mathematics. Prerequisites: Mathematics 126 or Mathematics 124 and 150.

250 Calculus III (4)
Topics in linear algebra and in differential equations. Prerequisite: 160.

260 Calculus IV (4)
Vector analysis, three dimensional analytic geometry, polar coordinates, multiple integration and partial differentiation. Prerequisite: 250.

303 Discrete Structures (3)
Combinatorial topics, graph theory, abstract algebra, 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. Prerequisites: Mathematics 225 or 250 and Computer Science 121.

308 Numerical Methods (3)
Accuracy of approximate calculations, finite differences, interpolation, summation of series, simultaneous equations, numerical differentiation and integration, significance of numerical results. Prerequisite: Computer Science 121 or equivalent. Pre- or co-requisite: Mathematics 260.

321 Introduction to Modern Algebra (3)
Integral domains, rings, fields, groups, elementary number theory, and other selected topics. Required of all B.A. mathematics majors. Prerequisite: 195.

322 Introduction to Point Set Topology (3)
Introductory set theory, topologies and topological spaces, continuous mappings, compactness, connectedness, separation axioms and metric spaces. Prerequisite: 195.

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. Required of all mathematics majors. Prerequisites: 195, 260.

407 Introduction to Probability and Statistics (3)
Permutations, combinations, finite sample spaces, averages, variance, binomial and normal distributions, random variables, statistical inference. Prerequisite: 260.

408 Mathematical Statistics (3)
Coefficients of dispersion and skewness, correlation, regression line, DeMoivre-Laplace theorem. Poisson distribution, chi-square and t and F distributions, frequency distributions of two variables, moment generating functions. Prerequisite: 407.

412 Introduction to Linear Algebra (3)

414 Operations Research I (3)
Methods of obtaining optimal solutions for systems involving linear inequalities, with applications. Prerequisite: Computer Science 121, Mathematics 412 or approval of instructor.

415 Mathematics for Elementary Teachers (3)
Designed to re-inforce mathematical concepts for elementary school teachers with emphasis on the relationship between mathematical ideas and reality. Logic and set operations, algebraic systems, and number systems included. Prerequisites: 115, 116 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 on the methods of obtaining numerical solutions of ordinary and partial differential equations, and systems of linear equations. Prerequisite: 260, 308, or approval of instructor.

424 Operations Research II (3)
Review of linear programming; topics in advanced linear programming including degeneracy, postoptimal analysis, and large scale decompositions; network flow and integer programming problems; queuing theory and some applications; inventory theory. Prerequisites: 414 and 407. Prereqiuirite: 408 or consent of instructor.

440 Applied Analysis (3)
Limiting processes precisely defined; interchange of limit processes; vector calculus through Stokes' Theorem and the Divergence Theorem; extremal problems for functions of several variables; implicit functions and the Jacobians; uniform convergence of series of functions. Prerequisite: 260.

445 Advanced Differential Equations (3)
Systems of differential equations; existence and uniqueness theorems; linear systems; phase plane analysis; stability theory; applications. Prerequisite: 350 or 440.

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. Prerequisite: 350.

451 Basic Concepts of Modern Mathematics (3)
Basic mathematical concepts from modern algebra, set theory, logic, probability and statistics, geometry, and number theory including examination of underlying assumptions in these areas. Prerequisite: one year of college mathematics. Not applicable on B.A. mathematics major.

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. Prerequisite: 195 or approval of instructor.

454 Abstract Algebra (3)
A study of special topics from advanced algebra, various algebraic structures, and the applications of algebra. Prerequisite: 321 or 412 or approval of instructor.

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. Prerequisite: 350 or 440.

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. Prerequisite: 260.
Music

Cadek Department of Music

Professor Peter Gerschefski, Head
Professor Draper
Associate Professors Breland, B. Jones, D. Riddlespurger, Rivituso, Stroud
Assistant Professors Abril, Bales, Bowles, Cox, Creider, Jennings, Miller, Patti, D. Pennebaker, Sahadi, Spalding, Stryker, Temko, Tompkins
Instructor J. Farr
Lecturers Aaron, Austin
Director of Bands B. Jones
Director of Choral Activities Draper

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 three degree programs at the undergraduate level: Bachelor of Arts with a major in music, Bachelor of Music and Bachelor of Science in Music Education. The B.M. degree provides four emphases for the major: instrumental performance, vocal performance, sacred music and theory/composition. The B.S. degree in music education provides two emphases 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.S. 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 an audition in their primary performing area and will take an entrance test in music theory. For all music majors, a 2.00 average in music courses is required for enrollment in 300 and 400 level music courses. A senior educational experience is required of all majors.

In addition to degree requirements herein listed, other regulations for music majors appear in the current Music Student Handbook.

Music (B.A.)
General Education (see pages 27-29 for list of approved courses):
Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses other than music: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category O
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major:
Music 107, 108, 207, 208, 315, 316
8 semesters (8 hours) ensemble participation
(4 hours of credit permitted beyond 42-hour limit in music)
8 semesters (8 hours) primary instrumental or vocal study
4 hours music electives in music history, music theory, or composition
4 hours music electives
Electives to complete 128 hours
See page 173 for typical course of study in music.

Music Education (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses other than music: one from humanities, one from fine arts, and one from either (3 hours each), plus courses in humanities/fine arts to total 12 hours in three fields other than history

Category C
2 approved behavioral or social science courses plus one course to total 9 hours behavioral or social science in two fields other than education

Category D
2 approved natural science courses to total 8 hours in natural sciences plus Mathematics 115

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Music 107, 108, 207, 208, 209, 210, 315, 316
20 hours applied music including: 8 semesters (8 hours) ensemble participation
8 semesters (8 hours) primary instrumental or vocal study or 6 hours primary and 2 hours secondary
Music 131, 132, 141, 142, for piano proficiency

One of the following options:
1. Instrumental Emphasis: Music 221; 3 hours of 223r, 3 hours of 224r; 2 hours of 225r; 226; 307 or 326; 325, 327, 328
2. Vocal Emphasis: 133, 134, 221, 1 hour each of 223r, 224r, 225r, 307, 309, 310, 333, 2 hours applied piano study in addition to piano proficiency study
26 hours Education including 102, 203 or 204, 207, 301, 406, 430, 432, 439, Music 321

2.00 average in teaching fields and in Education courses
Electives to complete 128 hours
See page 175 for typical course of study in music education.

Music (B.M.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses other than music: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major:
Core: Music 107, 108, 207, 208; 315, 316; 8 semesters (8 hours) piano study for non-keyboard 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 Emphasis: 8 semesters (32 hours) primary applied study; Music 332 (for piano majors). 19-21 hours music electives other than primary applied study.
2. Vocal Performance Emphasis: 8 semesters (32 hours) voice study; Music 217, 218; 333.
13 hours music electives
3. Sacred Music Emphasis: 8 semesters (24 hours) organ or voice study; Music 302; 2 hours of 305r; 309,310; 498r (field work); 404, 405, 406.
12 hours music electives
4. Theory and Composition Emphasis: 8 semesters (8 hours) primary instrument or voice study; Music 302; 4 hours of 305r; 307; 4 hours from 309,310,327,328; 8 hours of 401 or 407,408,409,410.
20-21 hours music electives
Electives to complete 128 hours.
See pages 173-174 for typical course of study in music.

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 other than those included in general education requirements are indicated as "elective." Appropriate music "ensemble" requirements are determined by the student and academic advisor; such 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 LEVEL OF STUDY AND SPECIFIC INSTRUMENT STUDIED.

020r Chattanooga Singers (1)
Study of music of all periods for large mixed chorus. Rehearsal and extensive performance experience emphasized. Performances in Chattanooga and throughout the world. Prerequisite: audition.
022r Chamber Singers (1)
Study of repertoire for small choruses through rehearsal and performance. Prerequisite: audition.

023r Choral Union (1)
Study of problems of ensemble participation through reading and rehearsing of music representing a wide variety of styles and periods.

025r Singing Mocs (1)
Study of styles and techniques appropriate to the performance of music in the popular idiom. 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. Prerequisite: audition.

031r Concert Band (1)
Reading, rehearsing and performing of contemporary and traditional band literature. Laboratory organization for instrumental conducting and band arranging classes. Offered each 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. Prerequisite: audition.

036r Jazz Band (1)
Study of types of styles of big band jazz. Emphasis on sight reading, improvisation and performance. 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 on development of musical and dramatic skills and stagecraft techniques. Prerequisite: audition.

041r Opera Theater (1)
Study of extended works for the lyric stage giving students the opportunity to appear with professional singing actors and orchestral musicians from the Chattanooga community and the larger music profession. Emphasis on various aspects of musical theater including musical, dramatic, and stagecraft techniques. Prerequisite: audition.

050r University Orchestra (1)
Rehearsal and performance of selected works from the symphonic repertoire from 1700 to the present. Prerequisite: audition.

051r Chamber Orchestra (1)
Study of the repertoire for small orchestras from 1700 to the present. Particular emphasis on advanced skills of orchestral performance. Prerequisite: audition.

The performing organizations mentioned above are open to University students with sufficient technical ability. Regular attendance at public performances and rehearsals by the appropriate group is required.

100 Elements of Notation, Dictation, and Sight Singing (2)
Designed for those taking music theory as an elective without previous experience. Credit not allowed for music majors.

107, 108 Theory I (4, 4)
Review of the fundamentals of musical grammar. A comprehensive study of meter, diatonic and bimodal harmony, simple structures and counterpoint. Performance, composition and analysis of music from all periods and styles. Class hours four. Prerequisite: 100. 107 prerequisite to 108.

111 Introduction to Music (3)
Basic structural and stylistic elements of music. Extensive use of recorded materials. Credit not allowed for music majors.

115 Introduction to Electronic Music (2)
An introduction to the appreciation and composition of electronic music. Basic tape manipulation technique; the vocabulary and usage of synthesizers; rudimentary electronics and acoustics; composition and analysis. For non-music majors. Prerequisite: Permission of the instructor.

121 Music Piano Class (1)
For persons without keyboard or music reading experience. Class hours two.

131, 132 Piano Class (1, 1)
For persons without keyboard experience. Class hours two. 131 prerequisite to 132.

133, 134 Voice Class (1, 1)
For persons without vocal experience. Class hours two. 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. Class hours two. 135 prerequisite to 136.

141, 142, Piano Class (1, 1)
Prerequisite: 132 or audition.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

201r Ensemble (1)
Accompanying, chamber, and other ensemble music.

207, 208 Theory II (4, 4)
A comprehensive study of chromatic and 20th century harmonic idioms, larger structures and musical style; melodic, harmonic and notational practice in twentieth century music. Performance, composition and analysis. Class hours four. 207 prerequisite to 208.

209, 210 Keyboard Harmony (1, 1)
The use of harmonic materials at the keyboard. 209 prerequisite to 210.

211 The Literature of the Symphony Orchestra (3)
Symphonic music from the middle of the 18th century to the present. Discussion, analysis, and recorded performance of standard masterpieces in the field. Offered alternate years: offered fall, 1979.

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. Offered alternate years: offered spring, 1979.
217. 218 Diction for Singers (2, 2)
An introduction to the pronunciation of Italian, German, French and English based on the International Phonetic Alphabet. Open to voice majors; others by permission.

221 String Methods (2)
Class instruction of the string instruments: violin, viola, cello, and double bass. Ensemble playing.

223r Woodwind Methods (1)
Class instruction of woodwind instruments; tuning and care of instruments. Teaching techniques. Single reed instruments, double reed instruments, and flute. Class one hour, laboratory one hour.

224r Brass Methods (1)
Class instruction of brass instruments; tuning and care of instruments. Teaching techniques. Piston valve instruments, French horn, and trombone. Class one hour, laboratory one hour.

225r Percussion Methods (1)
Class instruction of percussion instruments; sticking techniques; care of the instruments; teaching techniques. Drum and mallet instruments. Class one hour, laboratory one hour.

226r Marching Band Techniques (2)
A study of the techniques and style employed in training the marching band.

251r Keyboard Instruction (1-4)
Four hours practice per week required for each hour credit. Prerequisite: 142 or audition.

253r String Instruction (1-4)
Four hours practice per week required for each hour credit. Prerequisite: audition.

255r Voice Instruction (1-4)
Four hours practice per week required for each hour credit. Prerequisite: audition.

257r Woodwind Instruction (1-4)
Four hours practice per week required for each hour credit. Prerequisite: audition.

259r Brass Instruction (1-4)
Four hours practice per week required for each hour credit. Prerequisite: audition.

261r Percussion Instruction (1-4)
Four hours practice per week required for each hour credit. Prerequisite: audition.

302 Counterpoint (2)
An analytical survey of contrapuntal techniques. Prerequisites: 107, 108 or permission. Offered alternate years: offered spring, 1979.

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. Offered each spring semester. Prerequisite: 208 and permission of instructor.

305r Composition I (1-4)
Beginning composition study concentrating on small groups and short forms. Prerequisites: 207, 208.

307 Orchestration (2)
Scoring for strings, woodwinds, brasses and full orchestra. Piano transcriptions from orchestral scores. Prerequisites: 207, 208.

309, 310 Choral Conducting (2, 2)
First semester designed to teach the student to train choral groups, read choral scores, and conduct effective rehearsals; basic patterns for choral and orchestral conducting. Second semester devoted to interpretation and building of repertoire of both secular and sacred choral compositions. Actual conducting of works of all periods with and without instrumental accompaniment. 309 prerequisite to 310. Prerequisites: 207, 208.

315, 316 History of Music (3, 3)
A general survey of the history of music in western civilization. Prerequisite: 108.

317 Survey of Jazz (3)
A survey of jazz from its ethnic origins through its chronological development to its current styles.

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.

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.

326 Band Arranging (2)
Band instrumentation and general principles of arranging; special reference to writing for bands having incomplete instrumentation and less experienced players.

327, 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. 327 prerequisite to 328. Prerequisites: 207, 208.

332 Piano Pedagogy (2)
Piano methods and materials. For advanced students planning to teach piano. Offered alternate years: offered fall, 1979.

333 Vocal Pedagogy (2)
A comparative study of the major concepts in current vocal 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.

370r Electronic Music (2)
An introduction to and continuing experience with the aesthetics, analysis, and composition of electronic music. Tape recorder terminology; tape manipulation techniques; synthesizer technique; electronics; acoustics; composition and analysis. For music majors. Prerequisite: 132, 208 or permission.

401r Composition II (1-4)
Advanced composition study. Prerequisites: 305, 307. May not be used for graduate credit.

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. Open to music majors; others by permission. Offered alternate years: offered spring, 1980.
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. Open to music majors; others by permission. Offered alternate years: offered fall, 1979.

406 Hymnology (2)
Historical development of the Christian hymn; criteria for use of hymns and hymn tunes; the composition of hymns. Open to music majors; others by permission. Offered alternate years: offered spring, 1980.

407, 408 Advanced Analysis (2, 2)
Compositional, analytic techniques, and formal procedures, with emphasis on the 20th century. Prerequisite: 208 or permission of instructor--407 prerequisite to 408. Offered alternate years: offered 1978-79.

409, 410 Musical Styles (2, 2)
Literature of the various periods of music history, including characteristic features of musical style. Prerequisite: Permission of instructor. Offered alternate years: offered 1979-80.

411 Music Before 1600 (3)
A study of works, both monodic and polyphonic, characteristic of European music before 1600. Prerequisite: 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. 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. Prerequisites: 208 or permission of instructor.

414 Nineteenth Century Music (3)
A study of works characteristic of the period and illustrative of musical trends in the era. Extensive examination of representative scores. Prerequisites: 208 or permission of instructor.

415 Twentieth Century Music (3)
A study of works characteristic of the period and illustrative of musical trends in the era. Prerequisites: 208 or permission of instructor.

416 Percussion Instruction (1-4)
Four hours practice per week required for each hour credit. Prerequisite: 76 hours of 261r and successful audition for the division jury.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

Cadek Conservatory of Music

Functioning as an auxiliary of the Cadek Department of Music, the Cadek Conservatory has as its goal the musical education of students of all ages who are not enrolled at the University level. The Conservatory offers applied music courses in virtually all instruments and voice in a curriculum which includes music appreciation, theory and composition, as well as chamber music and other ensemble activity. This comprehensive curriculum includes a special college preparatory music course of study which is designed to give strong pre-college preparation to the student intending to pursue a major in music in college.

The faculty ranges from full-time Conservatory teachers to public school music teachers who serve part-time at the Conservatory; the faculty includes many University music faculty and prominent performing musicians as well.

For further information, please consult the Cadek Conservatory of Music Bulletin, or call 755-4624.

Philosophy and Religion

Associate Professor Klinefelter, Head Professors Hall, Mildram, Weisbaker
Associate Professor Burhenn

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. 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.

Philosophy and Religion: Philosophy, Religious Studies, Combined Concentration (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)
Category B
3 approved courses other than philosophy and religion: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity
Foreign language through second college year (Department recommends Creek, Latin, German, or French)

Major:
One of the following concentrations:
For Philosophy concentration
30 hours philosophy beyond 100 level including Philosophy 211, 351, 353, 498r; one course in ethics, metaphysics, or epistemology
For Religious Studies concentration
30 hours including: Philosophy 351, 353, 498r or Religion 498r
21 hours religion with two courses chosen from each of following groups:
1. Religion 211, 314, 316r, 418
2. Religion 232, 237, 355, 362, 467, 482
For combined concentration
30 hours from 200 level and above
15 hours philosophy including 351, 353, 498r
15 hours religion including 355 or 362 and one course from 337, 467, 482
(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.)
Electives to complete 128 hours.

See page 176 for typical courses of study in philosophy and religion.

Philosophy

101, 102 The Intellectual Adventure of Man (3, 3)
A thematic study of the great ideas humanity has produced in the attempt to understand itself, the world, and the universe; readings drawn from leading thinkers, ancient and modern.

109r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

201 Introduction to Philosophy (3)
An approach to the discipline through problems of perennial interest: being, knowledge and meaning; God; freedom and determinism; moral responsibility; perception; body, mind, and death.

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.

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.

230 Social and Political Philosophy (3)
An inquiry into various philosophical theories of the state and society, with critical examination of such concepts as law, rights, sovereignty, justice, liberty, and civil disobedience.

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.

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.

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.

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.

345 Epistemology (3)
A critical examination of the nature of knowledge and of the philosophical problems concerning skepticism; knowledge of the self, material objects, other minds; the past, present, and future; universals and necessary truth. Selections from both historical and recent writings.

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.

351 History of Ancient Philosophy (3)
Selections from the pre-Socratics through the late Greco-Roman writers, including Plotinus. Emphasis on Plato and Aristotle.

353 History of Modern Philosophy (3)
Rationalism and empiricism as developed by leading thinkers; selections from chief representatives from Hobbes and Descartes through Kant.

360 American Philosophy (3)
The pivotal writings of major historical and contemporary figures; materials chosen from men such as Peirce, James, Royce, Santayana, Whitehead, Dewey, Lewis, and Quine.

364 Existentialism and Phenomenology (3)
Selections from the works of philosophers such as Kierkegaard, Nietzsche, Husserl, Heidegger, Sartre, Jaspers, Merleau-Ponty, and Ricoeur.

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 general course for students not majoring in philosophy and religion.

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.

491r Studies in Philosophy (3)
A seminar or tutorial for the intensive consideration of one philosophical problem, movement, or figure.
495r Honors (1-4)
For any departmental major meeting University standards. Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)
Must be taken for at least 3 hours in one semester by all majors.

499r Group Studies (1-4)

501r Special Topics (1-4)

**Religion**

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.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

211 Religions of the World (3)
An examination of the history of religions, with particular emphasis given to selected examples of contemporary, living world religions in terms of their history, major ideas and cultic practices.

221, 222 Biblical Literature (3, 3)

232 Religion and the Modern Consciousness (3)
Examination of some principal Jewish and Christian beliefs in the light of humanity’s current understanding of itself and the world. Background lectures. Reading and discussion of modern interpreters of Christian faith.

236 Religion in American Life (3)
Attention to distinctly American phenomena, with the intention of assessing the present role and status of religion; consideration of such topics as frontier religion, the rise of fundamentalism, the social gospel, sects and cults.

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.

316r Religious Traditions in Asia (3)
Alternating concentration on three traditions: intensive reading of primary texts in translation. Hinduism: concentration on philosophical and religious problems exemplified primarily in the orthodox Hindu expressions of religion, and secondarily in the Jain and Buddhist writings. Buddhism: detailed studies of the classical formulations (Theravada) and later Buddhist writings (Mahayana). Islam: examination and the study of the Koran with particular emphasis on the schools and sects emerging from different interpretations of the law.

337 Interpretations of Religious Man (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.

355 Classics of the Christian Tradition (3)
Selected readings in leading works of Christian literature from the Patristic, Medieval, Reformation, and Enlightenment periods as represented by such authors as Augustine, Anselm, Aquinas, Luther, Calvin, and Wesley.

362 Theology in the Modern Period (3)
An examination of the major post-Kantian developments in Europe, Britain, and America, including such figures as Schleiermacher, Newman, Buber,Niebuhr, Barth, and Tillich.

401 Religious Studies in the Public School Curriculum (3)
Examination of the legal, theoretical, curricular, pedagogical and methodological aspects of developing a religious studies program for public schools. Designed especially for teachers and administrators.

418 History and Phenomenology of Religion (3)
A seminar on problems of method in developing data and interpretations of religious phenomena; attention to sociological, anthropological, psychological, and scientific studies; readings from such writers as Frazer, Eliade, Tylor, Durkheim, Jung, Muller, and Otto.

467 Contemporary Religious Thought (3)
Analysis of changing religious ideas in Europe and America from 1950 to the present; readings selected from Protestant, Catholic, and Jewish writers with emphasis on the interrelationship of faith and culture.

470 Psychology of Religion (3)
Analysis of empirical data and psychological theories involving religious beliefs, practices and experiences. Prerequisites: six units psychology or philosophy-religion. May be registered as Psychology 470.

482 Christian Faith and Recent Philosophy (3)
Recent attempts to utilize philosophy as a resource for theology; special attention to analytic, existentialist and process philosophers, together with related religious thinkers.

491r Studies in Religion (3)
A seminar/tutorial for the intensive consideration of one problem, movement, or figure in the field of religion.

497r Research (1-4)

498r Individual Studies (1-4)
Must be taken for at least 3 hours in one semester by all majors.

499r Group Studies (1-4)

501r Special Topics (1-4)

**Physics and Astronomy**

Professor Spangler, Acting Head
Associate Professors Hetzler, Lane
Assistant Professors Forester, Ransom

Physics (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)
Category B

3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C

2 approved behavioral or social science courses (6 hours)

Category D

2 approved mathematics or natural or applied science courses other than physics (6 hours; approved related courses below may apply)

Category E

1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:

One of the following options:

1. Reading knowledge of a foreign language
2. Two-course sequence in Computer Science (121, 231)
3. Two-course sequence in statistics

Mathematics 140, 150, 160 (250, 260 recommended)
Chemistry 121, 122
34 hours physics including 103, 104, 231, 232, plus 18 hours at 300, 400 level including one from each of following categories:

1. Physics 303, 304, 307
2. Physics 301, 309, 310
3. Physics 411, 412, 414
4. Physics 400r
16 additional hours (including 6 at 300, 400 level) from physics, mathematics, biology, chemistry, engineering at 200 level or above; or from other fields with prior approval by the Physics Department of a plan of study in conjunction with physics core Electives to complete 128 hours

See page 177 for typical course of study in physics.

Astronomy

101 Introduction to Astronomy-The Solar System (4)
Descriptive and conceptual. The structure and nature of the solar system. Lecture three hours, laboratory two hours including visits to the University Observatory.

102 Introduction to Astronomy-Stars and Galaxies (4)
Descriptive and conceptual. The nature of stars, galaxies and the structure of the visible universe. Lecture three hours, laboratory two hours, including visits to the University Observatory.

Physics

101, 102 Introductory Physics (4, 4)
A general education course in classical and modern physics, utilizing demonstrations and simple calculations and emphasizing the impact of physics on society. Lecture three hours, laboratory two hours. Prerequisites: two units of high school algebra.

103, 104 General Physics (4, 4)
The basic principles of physics with applications to problems of modern science and technology. Required in pre-medical, pre-dental, pre-pharmacy and physical therapy programs. Lecture three hours, laboratory two hours. Prerequisites: three units of college preparatory mathematics.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

230 Principles of Physics—Mechanics, Heat, Sound (4)
Fundamental principles and methods of physics: mechanics, heat, sound. Calculus is used wherever appropriate to the treatment of topics. Lecture three hours, laboratory 2 hours. Co-requisite: Mathematics 160.

231 Principles of Physics—Electricity, Magnetism, Waves, Light (4)
Fundamental principles and methods of physics: electricity and magnetism, wave motion, light. For all engineering students. Lecture three hours, laboratory 2 hours. Prerequisites: Engineering 103, 104 or Physics 104; Mathematics 150, 160.

1X1 Principles of Physics—Optics, Modern Physics (4)
Fundamental principles and methods of physics: modern physics, atomic physics, nuclear physics. For all engineering students. Lecture three hours, laboratory two hours. Prerequisites: Engineering 103, 104 or Physics 230 or Physics 104; Mathematics 150, 160.

301 Electricity and Magnetism (4)
Electrical and magnetic fields using vector calculus with applications. Maxwell's equations solved for simple problems in static fields and electromagnetic radiation. Lecture three hours, laboratory two hours. Prerequisites: Physics 104 or 231, 232; Mathematics 160.

303 Basic Electronics (4)
Fundamental theory of electronic devices including vacuum tubes and semiconducting devices. Characteristics and applications of components in basic electronic circuits including amplifiers and power supplies. Lecture three hours, laboratory two hours. Prerequisites: 101, 102, or 103, 104.

304 Electronic Circuits (4)
The theory and use of basic electronic instruments for electrical measurement or control. Multi-stage amplification, feedback, oscillators, and digital/logic circuitry treated with varying emphasis. Lecture three hours, laboratory two hours. Prerequisite: 303.

307 Optics (4)
Geometrical and physical optics, including reflection, refraction, interference, diffraction, and polarization; introduction to theory of spectra. Lecture three hours, laboratory two hours. Prerequisites: Physics 101, 102 or 103, 104; pre- or co-requisite: Mathematics 150.

309 Introduction to Theoretical Mechanics (4)
The concepts of theoretical mechanics illustrated with simple problems using vector algebra and calculus. Lecture three hours, laboratory two hours. Prerequisites: Physics 103, 104; Mathematics 150, 160.

310 Introduction to Thermal Physics (4)
The laws of thermodynamics, kinetic theory and statistical mechanics through the macroscopic description and microscopic theory of thermal phenomena. Lecture three hours, laboratory two hours. Prerequisites: Physics 103, 104; Mathematics 150, 160.

313 Introduction to Electronics (4)
Applications of electronic measuring instruments in chemistry, biology and psychology. Basic operations of power supplies, amplifiers, amplifier coupling, amplifier band width, tuned circuits, filters, oscillators, switching circuits, oscilloscopes and electronic voltmeters. Laboratory work involving basic electrical measurement. Simple circuits wired and tested using electronic measuring instruments. Lecture three hours, laboratory two hours. Prerequisites: high school algebra.

318 Radiation Physics: The Nuclear Age (3)
A course covering the history, sources, uses and hazards of nuclear radiation in our environment. The nature of nuclear energy handled in a manner compatible with the abilities of the general student body. Treatment of the impact of nuclear energy in various aspects, including the effects of radiation on life, the control of radiation and the complex balance of hazards and benefits. Technical possibilities and problems juxtaposed with the legal, political and moral decisions which are involved.
324 Physics for Musicians (4)
An intuitive, conceptual approach to the physics of music, rather than a rigorous mathematical treatment. A study of the physical basis of music, simple vibrating systems, waves, and wave propagation. The reception of musical sounds, intensity, and loudness levels, tone, quality, frequency and pitch. Auditorium and speaking room acoustics. Laboratory exercises in the use of the oscilloscope, measurements of velocity of sound, resonance, wave propagation, vibrating strings and reverberation time of various rooms. Lecture three hours, laboratory two hours.

400r Physics Seminar (1)
A study of reporting and review for physics research, including the abstracting of published reports. Maximum credit two hours.

411 Atomic Physics (4)
Elements of atomic theory with emphasis on atomic structure, radiation processes, spectroscopic analysis, crystal structure and wave phenomena. Lecture three hours, laboratory two hours. Prerequisites: Physics 103, 104 or 231, 232; Mathematics 150.

412 Nuclear Physics (4)
The theory of nuclear structure; nuclear radiation characteristics; the interaction of radiation with matter; nuclear binding forces; the control and use of nuclear radiation. Lecture three hours, laboratory two hours. Prerequisites: Physics 103, 104 or 231, 232; Mathematics ISO.

414 Advanced Modern Physics (3)
A study of the fundamentals of quantum mechanics and relativity. Emphasis on the relation of experimental evidence to the assumptions of the theories and to the predictions. Consequences of the theories obtained for important cases which illustrate the nature of relativistic and quantum physics. Lecture three hours. Prerequisite: Mathematics 160.

419 Introduction to Nuclear Reactor Physics (3)
Nuclear reactions and radiation; fission processes; neutron diffusion; reactor design variables; reactor materials and shielding; reactivity coefficients. Lecture three hours. Prerequisite: 412 or equivalent.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

General Science

111, 112 Physical Science (4, 4 with lab) (3, 3 without)
The broad flow of science from its historical beginnings to modern developments on the frontiers of research, emphasizing the influence of technology on society. Includes astronomy, biology, chemistry, geology, and physics. Non-mathematical, non-sequential. Lecture three hours, laboratory two hours.
Approved program of elective courses outside the Department of Political Science sufficient to fulfill the general University requirement of 128 credit hours necessary for graduation; list of courses normally prepared by the student and approved by a departmental advisor.

For Urban Studies concentration:
6 hours of major courses to be selected from Political Science 101, 233, 323, 331, 401 r, 421 r when appropriate to urban studies; and 461 r, 462 r, 463, 464 and 471 r.
18 hours additional from Economics 306, 455; Geography 415; Human Services 201; Psychology 316, 331, 421, 431, 458 r; Sociology 209, 219, 317, 318, 345, 400 r, 415, 455 r.
Recommended: courses in statistics and research methodology
Electives to complete 128 hours

See page 177 for typical course of study in political science.

101 Problems in American Politics (3)
Contemporary issues in American national politics, with emphasis on national political processes and institutions.

102 Problems in World Politics (3)
Contemporary issues in world politics, with emphasis on the problems of the developing nations as well as the competing ideologies of the 20th century: communism, fascism and democracy.

199 r Special Projects (1-4)
Individual or group projects.

201 Principles in Political Analysis (3)
Language, symbols, methods and data of political discourse and analysis. Required for political science majors.

202 Political Behavior (3)
Methods of participation in the political process.

203 Public Opinion (3)
Sources, content and impact of public opinion on the political process.

212 Theories of Politics (3)
The theoretical bases of political science. The various models employed by historical and contemporary political analysts.

213 American Political Ideas (3)
The major sources of American political ideas as a background to analyzing the political theory of the Founding Fathers.

214 Southern Political Ideas (3)
The political ideas of selected southerners from revolutionary America to the present day.

222 Introduction to American Constitutional Law (3)
Case studies of key Supreme Court decisions affecting the distribution of power in American society.

223 Introduction to Public Administration (3)
Principles of government organization, management, financial control, personnel practices and administration.

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.

234 The Presidency (3)
The nature of the presidency as an institution. Presidential decision making and relations with other branches of government.

235 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 for reform.

242 International Relations (3)
The thoughts of behavioral scientists, historians and philosophers about war and peace.

243 Political Development and Social Change (3)
A study of the social, economic and psychological factors that influence development and change in advanced or developing societies.

244 Comparative Public Policy (3)
The formation and implementation of social welfare policies in developed and developing nations.

301 Research Methods (3)
Basic techniques in political science research.

302 Political Psychology (3)
Psychological bases for political action.

303 Politics and Communication (3)
Propaganda and other means of political and social control.

312 Classical Political Ideas (3)
The political ideas of the classical period, with emphasis on Plato and Aristotle.

313 Democratic Theory (3)
The democratic state as seen by selected theorists from antiquity to the present day.

314 Contemporary Political Ideas (3)
The competing ideologies of the 20th century, with emphasis on contemporary political and social thought including Marxism and Fascism.

322 Civil Liberties (3)
Case studies of key Supreme Court decisions affecting the rights and freedoms of the individual in American society.

323 Law and Politics (3)
Lawyers, judges, police and the political process.

324 Public Policy (3)
Public bureaucracies and the policy making process.

331 Urban Politics (3)
Political processes and institutions in urban areas.

332 Political Campaigning (3)
How to campaign as a candidate or campaign aide, with emphasis on the practical aspects of campaign management.

333 Political Parties and Elections (3)
The evolution of American political parties, political machines and third parties. Campaign techniques.

342 Comparative Government and Politics: Europe (3)
The political, economic and social policies of European governments, with emphasis on the European Economic Community.

343 Comparative Government and Politics: Middle East (3)
Political, social and economic forces in the Middle East, with an emphasis on governmental structures and competing ideologies.

344 Comparative Government and Politics: Latin America (3)
Political, social and economic forces in the region, with emphasis on governmental structures and competing ideologies.

345 American Foreign Policy (3)
The basic foreign policy problems confronting the United States.

401 r Advanced Topics in Political Behavior (3)
Selected topics in political behavior. May be repeated once. Pre-requisites: 201 and 301.

402r Advanced Topics in Research Methods (3)
Selected topics in applied research. May be repeated once. Pre-requisites: 201 and 301.
Practice in professional psychology requires the attainment of graduate degrees, and in some areas, an appropriate internship. The undergraduate degree must be understood as the first step toward professional status. The baccalaureate degree in psychology is also sought by persons who do not intend to become professional psychologists, but who are interested in a liberal education focusing upon problems and processes of human growth and development. The department of psychology has developed a curriculum which meets the needs of a wide spectrum of interests. 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 are as follow.

Psychology (B.A.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than psychology (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6-8 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Foreign language through second college year

Major and related courses:
All psychology majors must take either Philosophy 348, Philosophy of Science, or one of the ethics courses, Philosophy 221, 322 or 425 as part of the major-related degree requirements. In addition, each student must select at least 3 courses from one of the areas listed below. At least 2 courses are to be selected from 200 level or above. Courses selected from these areas to fulfill the major-related degree requirements cannot be simultaneously used to meet general distribution requirements of the University.

The Areas:
1. Biology, chemistry, physics
2. History, political science, sociology/anthropology
3. Business administration, education, human services
4. Computer science, mathematics
5. Literature*, theatre & speech, philosophy
*Including non-English Department literature courses

27 hours psychology including 101, and one laboratory or research methods course; 9 hours must be upper level courses. Maximum of 6 hours of one psychology course labeled "r" and maximum of 9 hours of all psychology courses labeled "r" will count toward the 27 hours required for the major.

Recommended: courses in statistics and research methodology
electives to complete 128 hours

See page 177 for typical course of study in psychology.

Psychology (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than psychology (6 hours)
See page 177 for typical course of study in psychology.

2. History, political science, sociology/anthropology
All psychology majors must take either Philosophy 348, Philosophy of Science, or one of the ethics courses, Philosophy 221, 322 or 425 as part of the major-related degree requirements. In addition, each student must select at least 3 courses from one of the areas listed below. At least 2 courses are to be selected from 200 level or above. Courses selected from these areas to fulfill the major-related degree requirements cannot be simultaneously used to meet general distribution requirements of the University.

The Areas:
1. Biology, chemistry, physics
2. History, political science, sociology/anthropology
3. Business administration, education, human services
4. Computer science, mathematics
5. Literature*, theatre & speech, philosophy
   • Including non-English Department literature courses

33 hours psychology including 101, 201, or equivalent, and an additional research methods course; 9 hours must be upper level courses. Maximum of 6 hours of one psychology course labeled "r" and maximum of 9 hours of all psychology courses labeled "r" will count toward the 33 hours required for the major.

Electives to complete 128 hours
See page 177 for typical course of study in psychology.

Representative Programs:
It is recognized that the particular needs and interests of individual students vary widely. The accompanying undergraduate programs are not intended to indicate, with the exception of the statistics and research methods course for the B.S. program, required courses of study. They are intended to serve as models around which a student may construct his own program. Indicated are the general requirements for hours, limitations upon major hours for the B.A. and general education requirements.

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. May not be taken for credit if Psychology 103 has been taken previously.

199r Special Projects (1-4)
Individual or group projects. Maximum credit fours hours.

201 Research Methodology: Introductory Statistics in Psychology (3)
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. Prerequisite: 2 years of high school algebra or Mathematics 107.

202 Research Methods: Laboratory Techniques (3)
A study of laboratory methods making use of both human and infra-human organisms. Conducting original research through the process of laboratory experimentation, analysis of data for preparation of research reports. Prerequisites: 101 and 201 or equivalent.

203 Research Methodology: Field Research Techniques (3)
A study of psychological research methods appropriate to non-laboratory settings. Emphasis on research utilizing both quantitative and qualitative methods of analysis. Conducting original research. Critical evaluation of the research of others. Prerequisite: 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. Prerequisite: 101 or equivalent. Credit not allowed in both Education 203 and Psychology 221.

222 The Psychology of Adolescence and Adulthood (3)
Psychodynamic principles of adolescent functioning. Evaluation of various theories of adolescence. Consideration of life-span developmental concepts and the adjustment problems related to aging. Emphasis on age-related changes. Prerequisite: 101 or equivalent. Credit not allowed in both Education 204 and Psychology 222.

241 Differential Psychology (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. Prerequisite: 101 or equivalent.

251 The Psychology of Adjustment (3)
An integration of material from personality, social, abnormal and developmental psychology that contributes to understanding normal development and functioning as an adult. Institutional impact, such as college life, included in this analysis. Prerequisite: 101 or equivalent.

308 Principles of Abnormal Psychology (3)
A bio-social approach to theories of causation, development and symptomatic behavior in emotional disorders; theoretical bases of the various therapies and of positive means of prevention. Prerequisite: six 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. Prerequisite: 101 or equivalent; 201 recommended.

312 Sensation and Perception (3)
Study of sensory and preceptual processes; examination of the sense organs and related neurophysiological mechanisms, and of the necessary stimulus conditions for particular perceptual phenomena. Laboratory. Prerequisite: 101 or equivalent; 201 recommended.

313 Cognitive Processes (3)
Examination of the ways in which people process information; topics from perception, thinking, problem solving, and language behavior. Prerequisite: 101 or equivalent; 201 recommended.

314 Physiological Psychology (3)
The study of the physiological basis 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. Laboratory using human and/or animal subjects. Prerequisites: 101 and 201 or six hours of college biology courses.

316 Systems and Communication (3)
An examination of complex behavioral processes within and between systems. The role of communication 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. Prerequisite: 101 or equivalent.
331 Social Psychology (3)
Survey of the general concepts and research areas in social psychol­
gen. 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 as Sociology 331. Prerequisites: six hours of psychology or sociology. Credit not allowed in both Psychology 331 and Sociology 331.

345 Psychological Tests and Measurements (3)
Principles of psychological measurements including reliability, valid­
ity, errors of measurement, techniques of test construction, and problems in assessment and prediction. Laboratory use of selected tests. Prerequisites: six hours of psychology and an introductory statistics course.

351 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. Prerequisite: 6 hours of psychology and junior standing.

401 Intermediate Statistics in the Behavioral Sciences (3)
Consideration of the theory and application of non-parametric and parametric measures in research design; introduction to computer utilization in the analysis of data. Prerequisite: Introductory statistics course.

406 Industrial/Organizational Psychology (3)
Introduction to the study of organizations with emphasis upon person­
nel selection, criteria, and training. Special consideration of work motivation, job satisfaction and the role of the organization in behavior. Prerequisite: Introductory statistics course.

407 Professional Psychology (3)
Role models of the psychological practitioner in community set­
tings. Discussion of the foundations, methods, ethics, legal issues, and relationships with other specialists involved in professional psychology. 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 differ­
ces as they relate to personality. Prerequisite: 101 or equivalent; six 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 con­
temporary behavioral systems. Prerequisites: 8 hours psychology.

412 Advanced Seminar for Psychological Processes (3)
A comprehensive review of the field as summary experience, espe­
cially for senior major students planning to enter graduate study. Prerequisite: 18 hours of psychology and senior standing, or by permission of the instructor.

421 Advanced Developmental Psychology (3)
The growth of children through high school years with special atten­
tion to research methodology and findings in relation to factors of development and the acquisition of skills, understanding attitudes, habits, and personality. 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. Prerequisite: Psychology 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. Prerequisites: six hours of psychology.

459r 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. Prerequisites: six hours of upper division psychology and approval of instructor. Maximum credit six 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. Prerequisites: nine 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. Prerequisite: 460.

470 Psychology of Religion (3)
Analysis of empirical data and psychological theories involving reli­
gious beliefs, practices, and experiences. Prerequisites: six units psychology or philosophy-religion. May be registered for as Religion 470.

484 Social Psychology of Education (3)
Topics in the social psychology of education with particular em­
phasis on educational issues and problems from a social psychologi­
cal perspective. Prerequisite: 9 hours of psychology or permission of the instructor.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

Master of Science, Psychology

The Department of Psychology at The University of Tennessee at Chattanooga offers a Master of Science degree in psychology with specialization in the fields of clinical, school, and industrial/organizational psychology.

The goal of this program is to prepare the student to function as a professional psychologist in one of the three applied areas. A student in the clinical specialty typically takes three semesters of academic courses and a six month internship. The school specialty involves a competency based training model, and applicants for the degree in the specialty will need four semesters of training to meet state certification requirements. Three of these semesters will involve academic courses; the fourth will be spent as a school psychology intern. A student in the industrial/organizational specialty will normally take four semesters of academic coursework, including a practicum in the last semester. A Master’s thesis option is available in all
programs. This consists of Psychology 401,510 (511 for Industrial/Organizational students), and 6 units of 599r. The thesis option is in addition to all other requirements in the program.

Applicants who wish to be admitted to the degree program in psychology must meet all general requirements for admission to the Graduate Division of The University of Tennessee at Chattanooga. Applications must be made to both the Graduate Division and the Psychology Department. All forms are obtained only from the Graduate Studies Office, 114 Race Hall. Departmental application deadline is March 15. Applicants should consult the Bulletin for information regarding admission requirements.

Students in all programs are required to adhere to American Psychological Association guidelines for ethical conduct, test utilization, and research procedures. In addition, School Psychology students must adhere to the ethical code of the National Association for School Psychologists. Failure to adhere to appropriate ethical codes may result in disciplinary action, including dismissal from the program.

The following courses are part of the prerequisite departmental admissions requirements. Any exceptions must be approved by the director of the desired program.

Prerequisite Courses

Clinical Specialty

Required:
- General Psychology
- Introductory Statistics
- Psychology/Methodology Course
- Developmental Psychology
- Psychological Tests and Measurements
- Abnormal Psychology
- Personality Theory

Strongly recommended:
- Psychology of Learning
- Social Psychology
- Physiological Psychology
- Psychology of Adjustment
- Differential Psychology
- Advanced Developmental Psychology

School Specialty

Required:
- General or Educational Psychology
- Introductory Statistics
- Developmental Psychology
- Tests and Measurements
- Personality Theory

Strongly recommended:
- Abnormal Psychology
- Psychology of Learning
- Advanced Developmental Psychology
- Intermediate Statistics
- Professional Psychology
- Social Psychology of Education

Industrial/Organizational Specialty

Required:
- General Psychology
- Introductory Statistics
- Psychology Research Methods Course
- Psychological Tests and Measurements
- Intermediate Statistics in the Behavioral Sciences

Programs

Clinical Specialty

The graduate program in clinical psychology is designed to prepare the student for professional work as a Master's level clinical psychologist. The clinical program will prepare the student for licensure as a psychological examiner in Tennessee or the equivalent certification in other states. The clinical program requires successful completion of 54 semester hours of course work and takes a minimum of two years for completion. A full-time student will spend the first three semesters taking four courses per semester. These courses are mainly didactic, but also include practice or part-time supervised field experience in a mental health agency. The student's fourth and final term is a six month, full-time internship at a mental health facility chosen by the student and approved by the clinical faculty. About 25% of the clinical courses are offered at night, but there is no way that a student can complete the program without being able to take courses or participate in school-related activities in the daytime. However, every effort is made to schedule classes to minimize a student's time on campus.

Normally, registration in clinical courses is reserved for students in the clinical program. However, students in other graduate programs may register for most clinical courses so long as they have the necessary prerequisites and obtain the permission of the clinical program director. Normally, courses numbered 545, 546, 551, 552, 565, 575, are closed to all but students in the clinical program. Exceptions must be approved by the director of clinical psychology. The clinical faculty will serve as advisor for all clinical students and will meet with each student at least once each semester to review the student's progress and to help plan a course of study. At the completion of the first year's program, a student will be required to pass qualifying exams in each of four areas (assessment, psychopathology, research methods, and learning theory), exhibit acceptable progress in the practica of the program and exhibit ethical professional behavior in all areas in order to be advanced to candidacy and take second year courses. Any substitutions of courses or challenges to required courses must be approved by the program director.

Students may vary in the number of semesters required to complete the degree program depending on the number of courses taken each semester and other factors. The recommended sequence for a full-time student is outlined below. Part-time students and full-
time students must complete the first year program, comprehensive, and practica evaluation before starting the second year program.

Course Title

First year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
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</thead>
<tbody>
<tr>
<td>Individual Ability Testing</td>
<td>Personality Assessment Psychology</td>
</tr>
<tr>
<td>Child Psychopathology</td>
<td>Theories of Psychopathology</td>
</tr>
<tr>
<td>Learning &amp; Behavior Modification</td>
<td>Applied Research</td>
</tr>
<tr>
<td>Clinical Assessment Practicum</td>
<td>Clinical Diagnostic Assessment</td>
</tr>
</tbody>
</table>

Second year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Therapy, Theories &amp; Techniques</td>
<td>Group &amp; Family Therapy, Theories &amp; Techniques</td>
</tr>
<tr>
<td>Clinical Practicum</td>
<td>Elective</td>
</tr>
</tbody>
</table>

Electives

Electives must be chosen from the following list in consultation with the program director:

- Psychology 401
- Psychology 41 Or
- Psychology 421
- Psychology 431
- Psychology 597r
- Sociology 430
- Human Services 405
- Psychology 599r

School Specialty

The program for the school specialty is designed to prepare school psychologists who will work in school systems and other agencies which deal with children experiencing school difficulties. The program is competency based and leads to Tennessee State Department of Education certification as a school psychologist. The program will also enable the student to apply for licensure in Tennessee as a psychological examiner or for equivalent licensure in another state. Persons seeking certification or licensure in another state should consult the advisor for the school specialty.

Admission: An applicant must meet all the admission requirements of the Graduate Division. Forms required by the Graduate Division and the Psychology Department may be obtained from the Graduate Admissions Office and all materials must be returned to the Graduate Office for an applicant to be considered for the program. Prospective graduate students should consult other sections of the Bulletin and the Graduate Admissions Office for additional information about application procedures and deadlines.

Course Requirements: Graduation from the program is contingent on completing a minimum of 58 semester hours of credit and demonstrating all competencies required by the program. Alternates for any of the normal program or elective courses must be approved by the advisor for the school specialty. It should be noted that part-time students may not be able to complete the program within two years.

Admission to Candidacy: To advance to candidacy, a student must have completed all prerequisite courses, 24-30 hours of graduate credit including Psychology 531 & 532, and at least 10 of the competencies required by the program. A typical program of courses for the school specialty is as follows:
Industrial/Organizational Specialty

The goal of this program is to provide students with the necessary training for the effective professional practice of industrial/organizational (I/O) psychology in a work organization. Students receive training in the core concepts of industrial psychology, including selection, placement, test development, research methodology, job analysis, training, and interviewing. The program is also designed to provide a wide range of experiences encompassing the relevant areas of organizational psychology such as work motivation, job satisfaction, organizational needs assessment, organizational development, and others. Additionally, students are exposed to a variety of real-life organizational situations. Each student also participates in 6 hours of individualized practicum activity which provides supervised practice in the student’s desired area of emphasis, in an appropriate work organization. The sum of these activities, both course work and applied experience, will serve to give graduates a workable applied orientation toward the field of I/O psychology built upon a comprehensive understanding of the underlying principles and methods of the field.

Another goal of the program is to provide to those students who so desire the research skills and experience necessary to pursue a Ph.D. in I/O psychology at another institution.

The full-time student in the organizational specialty can complete the degree requirements in four semesters. All required courses are offered during evening hours with the exception of the practicum, which will be an individual arrangement between the student and work organization under the supervision of the program director.

The offering of graduate courses during the evening hours gives the program added flexibility in meeting the needs of part-time students who work during the day. It should be noted that more than four semesters will be necessary for part-time students to complete the degree requirements.

The normal program of courses for the industrial/organizational specialty is listed below. It is expected that each student will develop a complete program with the director, who is also the official advisor, as early as possible. All elective course choices must be approved by the director, and must be related to some special emphasis within the field of organizational psychology.

### Courses For Graduate Students Only

Only graduate students admitted to the appropriate program in psychology may register for any of the courses numbered 501 or above; all other graduate students must have written permission of the instructor. A student may not use more than a total of nine hours in any combination of the Psychology 597r and 598r courses toward any one Master’s degree specialty, unless specific approval is given by the student’s program director. The student’s program director must specifically approve any use of Psychology 599r topics toward completion of a Master’s degree specialty.

#### First Year

<table>
<thead>
<tr>
<th>Fall</th>
<th>Course Title</th>
<th>Psychology 501</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Organizational Psychology I</td>
<td>Psychology 506</td>
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<tr>
<td></td>
<td>Industrial Psychology I</td>
<td>Psychology 507</td>
</tr>
<tr>
<td></td>
<td>Psychology 401 (or elective)</td>
<td>Elective</td>
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<tr>
<td></td>
<td>Current Topics in Organizational Psychology</td>
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<tr>
<td></td>
<td>Interviewing</td>
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<tr>
<td></td>
<td>Practicum</td>
<td></td>
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<tr>
<td></td>
<td>Training</td>
<td></td>
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<tr>
<td></td>
<td>Elective</td>
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</tbody>
</table>

#### Second Year

<table>
<thead>
<tr>
<th>Spring</th>
<th>Course Title</th>
<th>Psychology 501</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Organizational Psychology II</td>
<td>Psychology 509</td>
</tr>
<tr>
<td></td>
<td>Industrial Psychology II</td>
<td>Psychology 512</td>
</tr>
<tr>
<td></td>
<td>Testing &amp; Evaluation Research</td>
<td>Psychology 511</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Practicum</td>
<td>Psychology 506</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>Psychology 516</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td></td>
</tr>
</tbody>
</table>

| Total Semester Hours | 48 |

#### 501 r Group Studies (1-3)

Study of selected topics through a seminar taught by appropriate faculty members. Topics to be taught will be announced in advance. Maximum credit: six hours for students in the psychology graduate program, unless specific approval is given by program director.

#### 506 Organizational Psychology I (3)

An introduction to the methods and concepts central to organizational psychology, including organizational theory and design, organizational assessment, motivation, leadership and other basic areas.

#### 507 Industrial Psychology I (3)

An initial introduction to the basic methods and concepts of industrial psychology, including topics such as testing, prediction, job analysis, and placement.
508 Childhood Psychopathology (3)
Theory, practice and research relative to the identification, understanding and treatment of developmental and clinical problems of children. Psychodiagnostic techniques and other methods of child study reviewed. Therapeutic and management approaches will be discussed and evaluated. Theoretical approach is broadly dynamic with some time devoted to behavioristic techniques. Prerequisites: 221; 308 or 448 or equivalents.

509 Organizational Psychology II (3)
Organizational Psychology II is the extension of the initial coverage of areas in Organizational Psychology I. Additional topics such as organizational development, communication processes, and more advanced concepts in the dynamics of organizational behavior will be covered.

510 Applied Research (3)
Discussion of problems in the application of psychological research methodology in non-laboratory settings. Emphasis on the interpretation and relevance of research results for the practitioner. Special consideration of studies concerned with psychotherapy, remedial learning, test applications and industrial problems.

511 Industrial/Organizational Testing and Evaluation Research (3)
Information gathering and program evaluation methods, including extant instruments and designs, intensively reviewed. Prerequisite: 401.

512 Industrial Psychology II (3)
Industrial Psychology II is the extension of the basic concepts covered in Industrial Psychology I. In-depth analysis of the methods used by industrial psychologists and of basic and advanced topics will be developed. Additional topics such as human factors engineering and systems approaches will also be introduced.

516 Training (3)
A review of the definition of training, the identification of training problems, the development of training materials, and the management of training and management development programs, with emphasis upon their evaluation. Prerequisite: 506.

517 Interviewing (3)
Extensive training in the fundamentals and techniques of interviewing. Comparative analysis of recruiting, interview and counseling uses of interviewing in work organizations. Interviewer assessment, VTR and small group feedback used. Prerequisites: 506, 507.

518 Theories of Psychopathology (3)
Advanced seminar on abnormal behavior with an emphasis on theories of the etiology of problems encountered in clinical practice. Prerequisite: 308.

522 Learning and Behavior Modification (3)
Study of the primary theories of learning with particular reference to, and application in, behavior modification. Discussion of the major views on types of behavior modification including selected research topics. Emphasis on application.

523 Theories and Techniques of Individual Therapy (3)
Investigation of the major approaches to individual therapy with an emphasis on specific problem related techniques. Techniques used by major schools of therapy will be reviewed.

524 Theories and Techniques of Group and Family Therapy (3)
Investigation of major approaches to psychotherapy with groups and families. Special emphasis on problems involved in therapy with more than one person.

526 Current Topics in Organizational Psychology (3)
Review of contemporary trends and issues specific to the field of organizational psychology. Topics such as, MBO, MOD and others will be explored. A systematic review of journal articles and current literature will be used.

527 Current Topics in Industrial Psychology (3)
Review of contemporary issues and trends in the field of industrial psychology. Topics such as federal employment guidelines and regulations, the assessment center concept and others will be covered. A systematic review of journal articles and current literature will be used.

531 Practicum I—Ecology of the Classroom (6)
Introduction to the profession of school psychology. Student assists classroom teacher in assessment, diagnosis and intervention on a group basis using techniques such as Flanders, Sociograms, etc. Student assigned one day a week to a public school classroom in addition to scheduled class meetings. Prerequisite: 545.

532 Practicum II—Psychoeducational Assessment and Intervention (6)
Administration of psychomotor, personality, and specialized intelligence tests. Students assigned one day a week to public school classroom in addition to scheduled class meetings. Prerequisite: 545.

533 Practicum III—Individual Behavioral Intervention (6)
Introduction to interviewing and counseling techniques, methods of referrals, ethics of school psychologist, etc. Training in interviewing techniques, communicating recommendations to parents, and designing appropriate environmental interventions for behavior problems. Students assigned one day a week to public school classroom in addition to scheduled class meetings. Prerequisite: 532. Admission to candidacy.

536 Practicum in I/O Psychology (1–6)
An individualized practicum designed to provide supervised practice in the student’s desired area of emphasis in appropriate work organizations. Possible emphases are personnel selection and placement, training, supervision, communication processes and management or organizational development. Prerequisite: approval of the organizational psychology program director.

545 Individual Ability Testing (4)
Theory and supervised practice in the administration and interpretation of individual tests of intelligence and other cognitive factors, including the Stanford-Binet and the Wechsler Scales. Prerequisite: 345. Preference will be given to psychology graduate students.

546 Clinical Assessment Practicum (3)
Psychological assessment in a supervised setting to develop skills in testing and evaluation. Co-requisite: 552. Prerequisites: 545, 551.

551 Personality Assessment (4)
Administration and interpretation of major personality assessment instruments including widely used objective tests and projective instruments. Emphasis will be placed on the development of a personality assessment battery for use in clinical psychology. Prerequisite: 345.

552 Clinical Diagnostic Assessment (3)
Development, administration and interpretation of assessment approaches used in the development of therapeutic strategies. Emphasis will be placed on the diagnostic interview, life history assessment and behavioral assessment both for initial assessment and ongoing process assessment. Problems related to assessing specific populations and specific disorders will be discussed. Prerequisites: 545 and 551.

565 Practicum—Clinical Practice (3)
Designed to provide the student with supervised practice in diagnostic evaluation and psychotherapy in an approved facility that reflects the student’s professional goals. Prerequisite: 545, 546.

566 Practicum—Psychotherapy (3)
Designed to allow the student to pursue under supervision a particular therapy such as behavior modification, group psychotherapy, play therapy, family therapy, etc., which would not ordinarily be available at the facility where the internship is being served. Prerequisite: 523.
571 Internship—School Specialty (1-12)
Intensive experience under supervision in a public school system or in school related agencies. Topics in organization and structure of the school, systems analysis, mental health consultation methods, and the application of school psychology to the systems considered. Internship requires one academic semester of full-time participation or two academic semesters of half-time participation and scheduled meetings between students and faculty advisor during the internship. Prerequisites: Currently taking or completion of Psychology 533; admission to candidacy; and completion of at least 18 competencies required by the program.

575 Internship—Clinical Specialty (1-12)
Provides students intensive full time experience under supervision in a facility similar to that in which the student expects to enter employment after graduation. Internships require six months (1000 hours) of full time participation and scheduled meetings between student and faculty advisor during the internship. Prerequisite: 565 and approval by the Clinical Program Committee.

597r Individual Research (1-3)
Supervised individual projects that involve intensive literature surveys or development of research procedures. A written report required. Maximum credit: six hours.

598r Directed Individual Study (1-3)
Supervised individual study in subject areas included in the graduate curriculum in psychology. Demonstration of knowledge acquired via tests and/or reports required. Maximum credit: six hours, unless specific approval is given by student's program director.

599r Master's Thesis (1-6)
Supervised individual study that involves intensive literature surveys or the development of research procedures. A written report required. Maximum credit: six hours.

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than anthropology and sociology (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Sociology and Anthropology

Professor Cahill, Head
Associate Professors J. Brown, Ceevarghese, Kileff, Pate, Thurston
Assistant Professors Miles, Noyes, Robinson

Any student in good standing with the University may be admitted to the major program. Various concentrations within the major field have been designed to meet the special needs of students majoring in either sociology, anthropology, or urban studies. (See following concentration programs.)

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 of Archaeology is an instructional and research museum located in Brock Hall. The Institute 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.

Sociology and Anthropology: General, Anthropology, Sociology, Urban Studies Concentrations (B.A.)

General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than anthropology and sociology (6 hours)
Category O
2 approved mathematics or natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 125, 126, 210
Computer Sciences 121
English through 102; and one course in written communication above the 100 level.
Completion of one of following concentrations:

For anthropology concentration (B.S.)
33 hours of sociology and anthropology including Anthropology 152 and 302; nine hours selected from Anthropology 208, 209, 210 and 211; Sociology 314 and 394 or nine hours of approved anthropology field and laboratory courses; three additional hours of sociology, additional anthropology electives up to 33 hours to complete the concentration.

For sociology concentration
33 hours sociology and anthropology including 151, 312, 314, 394; Anthropology 152 or 208; plus 15 hours of electives (at least 9 hours at 300-400 level) with 12 of the 15 hours in sociology.

For urban studies concentration
33 hours sociology and anthropology including Sociology 151, 314, 394; Anthropology 152 or 208; Anthropology 302 or Sociology 312; plus 18 hours of electives of which 12 hours must be at 300-400 level; and Mathematics 210.

6 hours of major courses to be selected from Sociology 209, 219, 317, 318, 345, 400r, 415, 455r
18 hours additional from Economics 306, 455; Geography 415; Human Services 201; Political Science 101, 233, 323, 331, 401 r or 421 r (when appropriate to urban studies,) 461 r, 462r, 463, 464, or 471 r; Psychology 316, 331, 421, 431, 456r

Electives to complete 128 hours

See pages 178-179 for typical course of study in sociology and anthropology (B.S.).

Anthropology

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.

199r Special Projects (1-4)

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.

209 Physical Anthropology (3)
The origins and relationships of extinct and present forms of humankind in the light of evolutionary theory. Includes fossil evidence bearing on human evolution, the nature of human variation, evidence bearing on primate-human relationships and the influence of culture on human evolution.

210 Language and Its Structure (3)
A first course in the nature of language and the analysis of linguistic structures, with special reference to the structures of non-western languages.

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.

302 Anthropological Theory (3)
A systematic survey of the development of major theories in anthropology with particular attention to theories of culture. Prerequisite: three hours of anthropology.

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.

333r Peoples and Cultures (3)
Ethnological studies of selected culture areas or dominant peoples of an area. Topics covered vary with need and availability of staff; Sub-Saharan Africa, Southeast Asia, India, Middle East, Mayan Indians, etc. Prerequisite: three hours of anthropology or approval of instructor.

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. Prerequisite: three hours of anthropology 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. Prerequisite: approval of instructor.

351 Language in Society and Culture (3)
A study of the relationships between language and society and language and culture. Materials drawn from modern sociolinguistics and ethnolinguistics.

356 Archaeological Collections (3)
Principles of organization, analysis and interpretation of prehistoric and historic archaeological materials. Techniques of preservation and presentation. Two hours lecture, two hours laboratory. Prerequisite: approval of instructor.

366r Communications Laboratory (3)
Laboratory methods and field techniques of research in human and animal communication. Individual or group projects. Prerequisite: approval of instructor.

410 Culture and Personality (3)
The influence of culture patterns upon the development of personality; materials from simple and complex societies; national and tribal character, and relevant theoretical viewpoints. Prerequisites: three hours of sociology, anthropology, or psychology or approval of instructor.

411 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.

425 Comparative Social Institutions (3)
The application of the comparative method in the analysis of sociocultural systems. Topics specified each semester. Prerequisite: three hours of behavioral science or approval of instructor.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

501 Special Topics in Anthropology (3)
Graduate level course stressing research in a special area, such as industrial archaeology, linguistics, cultural variations, etc. Prerequisite: appropriate undergraduate courses or permission of instructor.
Sociology

125 Social and Cultural Perspectives (3)
What sociologists and anthropologists do and how they think; significant contemporary works and their applications; assumptions and perspectives in dealing with data, methods, theory and their interpretation. May not be taken subsequent to Sociology 151. Not recommended for sociology majors.

151 Principles of Sociological Analysis (3)
Scientific study of human society and how individuals and groups adjust to each other and to their physical and social environment; examination and clarification of varying research approaches; consideration of basic concepts, theories and principles of explanation used by sociologists.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

209 Population and Society (3)
The study of population growth and decline, composition and distribution, and the interrelated effects on economics, social structures and environmental resources. Special emphasis is placed on problems of urbanization and population policies.

215 The Sociology of the Family (3)
The study of modern marriage and family institutions from sociological and social psychological perspectives; the social regulation of mate selection, kinship relationships and sexual behavior; evaluations of research findings and emerging trends.

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.

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.

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: Computer Science 100 or approval of instructor.

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. Prerequisites: three hours of behavioral science.

312 History of Social and Cultural Theory (3)
Scientific theories of social relations and culture from the 19th century to the present; the role of theory in an empirical science. Prerequisites: Sociology 151 or Anthropology 208 or approval of instructor.

314 Research Methods (Sociology or Anthropology Emphasis) (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. Prerequisite: 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 impact upon personal values and individual behavior applications in modern education, industry, government and institutional life. Prerequisites: three hours of behavioral science.

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. Prerequisite: three hours of behavioral science.

320 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. Prerequisite: three hours of sociology or approval of instructor.

321 Criminology (3)
The nature of crime; criminal statistics; causal factors; theories and procedures in prevention and treatment. Prerequisite: three hours of sociology 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. Prerequisite: three hours of sociology 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. Prerequisite: three hours of sociology or approval of instructor.

331 Social Psychology (3)
See Psychology 331.

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. Prerequisite: three hours of behavioral science.

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. Prerequisite: three hours of behavioral science.

360 Social Gerontology (3)
A study of the role of the aged in modern society. The process of aging and the problems of the aged. Changing values and institutional responses to the aged. Prerequisite: three hours of behavioral science.

365 Sociology of Medicine and 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. Prerequisite: Three hours of behavioral science.

391 History of Social Thought (3)
Trends in beliefs and values regarding human society, in their interrelationships in ancient cultures and in Western thought to the 19th century.

394 Research Seminar (Sociology or Anthropology Emphasis) (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. Prerequisites: Sociology 314; Math 210 is required for all majors in the sociology concentration under the B.A. degree and for all taking the B.S. degree.

400r Urban Studies (3)
Topics in the analysis of urban structures, the content of urban cultures, and urban problems; the urbanization process; comparative studies of urban communities; urban anthropology. Prerequisite: three hours of behavioral science or approval of instructor.

415 Urban Geography: Urban Land Development and Redevelopment (3)
See Geography 415.

422 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. Prerequisite: three hours of behavioral science or philosophy or religion or approval of instructor.

430 Dynamics of Intergroup Relations (3)
An advanced course in minority relationships focusing on social psychological aspects of prejudice and discrimination; analysis of the effects of strategies or movements aimed at change and unplanned consequences of shifting social, economic or power relationships. Prerequisite: 305 or approval of instructor.

431 Advanced Social Psychology (3)
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. Prerequisite: three hours of sociology or anthropology or approval of instructor.

450 Seminar in Socio-Cultural Theory (3)
Directed individual study in selected areas; reports; discussion; emphasis on insights into major socio-cultural phenomena. Prerequisite: Anthropology 302 and Sociology 312 or approval of instructor.

455r Symposium on Urban Issues (3)
Participants responsible for conducting an in-depth analysis of some urban issue selected in the previous semester by the Department of Sociology and Anthropology. Organization of a University wide multi-day symposium to share the results. Participants in the symposium required to submit a paper from their work to be considered for inclusion in the symposium and to help in the implementation of the symposium. Prerequisite: approval of instructor.

470r Special Studies and Problems (1-3)
Investigation and reporting on specialized topics in research or theory under faculty direction. Primarily for seniors. Prerequisite: permission of instructor. Maximum credit six hours.

499r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

501r Special Topics in Sociology (3)
Graduate level course stressing research in a special content area, such as demographic analysis, intergroup relations, advanced criminology, marriage and family analysis, etc. Prerequisite: Appropriate undergraduate courses or permission of instructor.

Spanish

See Foreign Languages and Literatures

Theatre and Speech

Associate Professor Wiley, Head
Assistant Professor Lewis

Requirements for the Bachelor of Arts, Theatre and Speech

General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses other than theatre and speech: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Foreign language through second college year

Major:
36 hours theater and speech with 30 hours above 100 level
Two courses outside department may count toward major with approval of department head
Electives to complete 128 hours
See page 179 for typical course of study in theatre and speech.

101 Theatre Theory and Practice: Scenery and Lighting (3)
Understanding of traditional forms and types of drama combined with the application of modern techniques of scenery and lighting to the production of University Theatre plays.

102 Theatre Theory and Practice: Costumes (3)
Relationship of the forms and types of dramatic art to theatrical costume; application of contemporary costuming techniques to University Theatre productions.

103 Fundamentals of Acting (3)
Exercise in traditional and contemporary techniques of theatre speech, movement and gesture, character and scene analysis; emphasis on ensemble acting.

107 Voice and Diction (3)
Systematic training of the speaking voice for controlled articulation, volume, and tone in interpersonal communication.

108 Oral Interpretation (3)
Systematic teaching of the principles and skills of effective oral reading with a continuing study of voice and diction.

109 Public Speech Communication (3)
Practical application of the principles of public speaking and group discussion.
111 Introduction to the Theatre (3)
Representative types and styles of theatre arts.

190r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

200r Performance and Production (1-3)
Practical application of theatre theory and technique in the mounting of a major production. Course graded on a satisfactory/no-credit basis.

211 The Theatre to 1700 (3)
History of the theatre as an art and as an institution from its beginnings through the 17th century.

212 The Theatre from 1700 to the Present (3)
History of the theatrical arts in their social setting from the 18th century to the contemporary period.

213 Scene Design (3)
Introduction to the basic techniques and methods of modern scene design and graphics in interpretation of representative examples of dramatic literature.

214 Costume Design (3)
Basic procedures and principles of costume design for representative types and styles of drama.

270 Introduction to Mass Communication (3)
The history, theory and practice of mass communication, emphasizing radio, television and film.

280 Introduction to Film (3)
The history and language of motion pictures, studied by viewing and analyzing selected film masterpieces.

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.

311 Comedy (3)
Types of comedy, farce, satire and related forms examined in theoretical studies and representative works. Emphasis on theatrical techniques of communicating the comic vision to the audience.

312 Development of Dramatic Art (3)
Types of tragedy, melodrama, and related forms examined in theoretical studies and representative works. Emphasis on theatrical techniques of communicating the tragic vision to the audience.

313 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 the cultural milieu.

315 Creative Theatre (3)
Performance and production designed primarily for the non-major; emphasis on improvisation and other creative theatre techniques.

317 Directing (3)
Close study of the basic elements of play direction and composition; staging or writing of a short play.

321 The Modern Theatre (3)
Theatre and drama from Ibsen to the present. Emphasis on European and American playwriting and production since 1920.

331 The Shakespearean Theatre (3)
Elizabethan drama, stage and production examined by detailed theatrical study of plays by Shakespeare and his contemporaries. Consideration of problems of modern Shakespearean production.
The College of Professional Studies offers undergraduate majors in business, computer science, education, human services, and nursing. In addition, graduate programs are offered in business, criminal justice, and education. Special units within the College include The Center for Economic Education, The Division of Special Services, and the department of military science. The College is divided according to the following academic organization.

School of Business
- Accounting and Finance
- Economics
- Management & Marketing
- Office Administration/Business Education
- Graduate Programs in Business

Center for Economic Education

Computer Science Program

School of Education
- Administration and Foundations
- Health, Physical Education-Recreation
- Instruction
- Elementary Education
- Secondary Education
- Special Services
- Guidance and Counseling
- Reading
- Special Education
- Graduate Programs in Education
- Field Services and Certification

Division of Human Services
- Criminal Justice
- Home Economics
- Human Services
- Social Work
- Graduate Programs in Criminal justice

Military Science Department

Nursing Department

Division of Special Services/Upward Bound
School of Business Administration

Professor Kermit G. Cudd, Director
Associate Professor A. Richard Casavant, Jr., Coordinator of the MBA Program

The School of Business Administration is organized within the College of Professional Studies. A variety of degree and certificate programs are offered in business administration, economics and office administration.

Business Administration

Accounting and Finance
Professor Moon, Head
Professors Fulmer, Hale
Associate Professors Cooper, Currie, Gavin, Quinn, Stewart, Willis

Management and Marketing
Associate Professor, Ettkin, Head
Professors Cook, Cudd, Geraghty
Associate Professors Casavant, Hammer, Lewis, Ryan
Assistant Professors Macomber, Thorne

The business administration curriculum leading to the Bachelor of Science degree is designed to prepare professional managers for a successful career in the private, public, and non-profit sectors. Emphasis is placed on breadth in education for life-long professional career development. The curricula also provide essential skills for employment opportunities in selected career fields. Career preparation is emphasized in the following concentrations:

Accounting
Finance
General Management
Industrial Management
Marketing

Business Administration (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (9 hours each)

Category C
2 approved behavioral or social science courses other than economics (6 hours; approved related courses below may apply)

Category D
2 approved mathematics or natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Six hours selected from Political Science 101, Psychology 101 or Sociology 151
Mathematics 125,126
Computer Science 100
One course from English 200,300,410, or Office Administration 219 (minimum of 8 hours in written communication including required courses in Category A)
36 hours common body of knowledge in economics and business administration including Economics 101,102, Business Administration 201, 202, 211, 212, 302, 311, 313, 315, 335, 440
A minimum of 54 hours of the 128 total must be taken at the 300-400 level.
Completion of one of the following concentrations:

For Accounting concentration
Computer Science 123
6-9 hours Economics including 325, 429
3 hours chosen from Business Administration 284, 337
9 additional hours of business administration and economics electives chosen from Economics 304, 306; Business Administration 284, 305, 336, 337, 356, 403, 424.
Electives to complete 128 hours
Maximum of 72 hours total accepted in School of Business Administration

For Finance concentration
13 hours Business Administration including 321, 322, 422, 423, 441
6 hours Economics including 325, 429
3 hours chosen from Business Administration 284, 337
9 additional hours of business administration and economics electives chosen from Economics 304, 306; Business Administration 284, 305, 336, 337, 356, 403, 424.
Electives to complete 128 hours
Maximum of 72 hours accepted in the School of Business Administration

For General Management concentration
16 hours to include Business Administration 325, 332, 356,434, 441, Economics 301.
9 hours chosen from Business Administration 351,354,410,435,438, 454, 456, 459.
Electives to complete 128 hours
Maximum of 72 hours total accepted in School of Business Administration

For Industrial Management concentration
19 hours including Business Administration 305, 354, 356, 441, 451, 452, Engineering 458.
9 hours electives chosen from Business Administration 319,332,410, 434,435,454,456, Economics 429, Engineering 452,454,455,457.
Electives to complete 128 hours
Maximum of 72 hours total accepted in School of Business Administration

For Marketing concentration
19 hours including Business Administration 356, 365, either 361* or 362*, 411, 450, 461, Economics 425.
6 hours Business Administration chosen from 318,319,361,362,363, 364, 415, 417.
•Either 361 or 362 is required. The course not chosen to meet this requirement may be taken as an elective.
Electives to complete 128 hours
Maximum of 72 hours total accepted in School of Business Administration

See pages 155-157 for typical courses of study in business administration programs.

103 Introduction to Business (3)
General characteristics of business enterprise and business terminology. Junior and senior majors in business administration will not receive credit for the course.

201, 202 Principles of Accounting (3, 3)
Accounting principles underlying the balance sheet and the income statement as they apply to proprietorships, partnerships, and corporations. 201 is a prerequisite to 202.

211 Statistical Methods for Business I (3)
Basic concepts of descriptive and inferential statistics including frequency, probability, and sampling distributions, estimation theory, and introduction to hypothesis testing. Emphasis on business applications. Prerequisite: Mathematics 125.

212 Statistical Methods for Business II (3)
Probability and statistical inference with emphasis on decision-making in business. Computer applications of statistical analysis. Prerequisites: Business Administration 211, Mathematics 126.

281 Real Estate Fundamentals (3)

282 Real Estate Law (3)
Acquisition and transfer of property; rights of adjoining owners; mortgages and liens; abstracts of title; recording; drafting of deeds; leases, options and other legal aspects of property.

283 Real Estate Appraisal (3)
The fundamentals of appraising various types of real estate; the concept of value; the influence of architecture and construction; depreciation; analysis of city and neighborhood; different approaches to real estate property valuation.

284 Real Estate Finance (3)
Elements of mortgage finance; source of mortgage funds; construction loans; interest rates; servicing mortgages; V.A., F.H.A., conventional, and other loans.

301 Personal Finance (3)
Designed to help the individual and family make intelligent, informed decisions on personal financial management.

302 Business 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. Prerequisites: Economics 101, 102; Business Administration 202, 212.

303 Intermediate Accounting (3)
The theoretical foundations and structure of accounting as they relate to the presentation of financial statements. Emphasis is on current generally accepted accounting principles. Prerequisites: 202, 211.

304 Intermediate Accounting (3)
A continuation of the theoretical foundations and structure of accounting as they relate to the presentation of financial statements. Emphasis is on current generally accepted accounting principles. Prerequisites: 212, 303.

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, responsibility accounting; operational and capital budgeting models and their data requirements. Prerequisite: 202.

306 Budgeting (3)
Cost accounting by standard costs. Cost analysis and cost distribution reports emphasized. Methods and procedures in the preparation and execution of master and special budgets for industrial and commercial enterprises. Prerequisite: 202.

307 Federal Tax Accounting (3)
Fundamentals of federal income tax with major emphasis upon tax law and regulations applicable to individuals. Prerequisite: 202.

309 Advanced Tax Accounting (3)
Continuation of 307 with attention given to the study of the federal income tax problem areas of various accounting and legal entities. Prerequisite: 307.

311 Operations Management (3)
An introduction to the design, operation and control of a product or service oriented environment. Major emphasis is placed on the following decision tools and/or models: forecasting, linear programming, simulation, quality control, inventory control, network analysis, job design, and standards. Prerequisites: Economics 101 and 102; Business Administration 212; junior standing.

313 Basic Marketing (3)
Principles and methods involved in the movement of goods and services from producer to consumers; strategies the firm may use to take advantage of market opportunities; how the social, political, and economic environment alters these market opportunities. Prerequisites: Business Administration 202; Economics 101, 102; junior standing.

315 Behavioral Concepts in Administration (3)
Inter-and intra-group relations in administration with special emphasis on superior-subordinate relations in a business environment. Comparison of classical concepts of leadership, structure, and development with contemporary research. Prerequisite: junior standing.

318 International Marketing (3)
Management of the international marketing activities of the firm. Planning, organizing, and implementing international marketing programs for industrial and consumer goods. Emphasis on the influence of environmental differences on marketing decisions in various countries. Prerequisite: 313.

319 The Logistics of Physical Distribution (3)
The interaction and interdependence of transportation, warehousing, order processing, inventory control, packaging, and plant location in the effective and efficient movement of products and services from producer to consumer. Prerequisite: 313.

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. Prerequisites: Economics 101, 102; Business Administration 202; junior standing.

322 Commercial Banking (3)
A course designed to introduce the student to the decisions facing a commercial banker. Topics covered include banking history, role of money in the economy, the commercial banking system, Federal Reserve rules, regulations and monetary management, and special
topics such as credit analysis, installment lending, management of a bank’s cash balances, loan policy and money management services. 

**Prerequisites:** Economics 101, 102; Business Administration 202.

325 Organizational Management (3)
Theory and practice of organization building with special emphasis on business organization; behavioral science findings as applied to organization. **Prerequisites:** Economics 101, 102, Business Administration 315.

332 Personnel Management (3)
Principles and practices involved in the effective administration of personnel. **Prerequisites:** Economics 101, 102, Business Administration 315.

335 Legal Environment of Business (3)
American legal institutions and sources of law; an introduction to social and political influences as reflected in government regulation.

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.

337 Principles of Insurance (3)
Types of insurance, insurance coverage, policy protection, and company organization and regulation. **Prerequisites:** Economics 101, 102.

351 Comparative Administrative Systems (3)
A comparison of the various facets of administering a public organization and a private enterprise. Detailed analysis of areas such as human relations, motivation and decision-making which organizations have in common, as well as an analysis of contrasting areas such as grievance, budgeting, and hiring procedures. Taught from a behavioralist rather than an organizational point of view. **Prerequisite:** 315.

354 Industrial Systems Management (3)
A study of the functions of production systems. Investigation of the practices involved in plant location and layout, planning and control purchasing, labor control budgets and incentives, wage and salary administration. **Prerequisite:** 311.

356 Management Science (3)
Quantitative decision-making techniques under deterministic and stochastic conditions; topics to include decision model building, linear programming, goal programming, assignment problem, transportation problem, network models, queuing, dynamic programming and simulation. **Prerequisite:** 311.

357 Nonparametric Methods for Business (3)
An introduction to nonparametric techniques with applications in such areas as marketing research, management science, production, and finance. Computer applications. **Prerequisite:** 212.

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. **Prerequisite:** 313.

362 Advertising (3)
The nature of advertising, its role in society and in demand-stimulation. A conceptual foundation is made upon which specialized knowledge can be built. Research, copy, layout, production, budgeting, advertising organization and the history and economics of advertising are covered. **Prerequisite:** 313.

363 Sales Management (3)
Sales department organization and its relation to other departments; the sales manager; sales planning and forecasting; territories; selection and training of salespeople; sales policies; analysis and control of distribution costs; the organizing, controlling, motivation, and evaluation of the field sales force to accomplish market objectives. **Prerequisite:** 313.

364 Retailing (3)
Organizing, financing, staffing, and operating retail institutions, **Prerequisite:** 313.

365 Consumer Behavior (3)
An analysis of consumer motives, attitudes, expectations, buying behavior, market adjustment and product innovation, including a survey of related explanatory theories. The decision-making process by consumers is evaluated with reference to economic and sociopsychological factors. **Prerequisite:** 313.

401 Advanced Accounting (3)
Accounting for partnerships, consignments, insurance, installment sales, receivership, branches, estates and trusts, and public accounts. Application of accounting principles to consolidations. **Prerequisite:** 304.

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. **Prerequisites:** 302, 302, senior standing or permission of instructor.

405 Auditing (3)
Kinds of audits, systems of accounts, and methods of conducting audits. Preparation of working papers and reports. **Prerequisite:** 304.

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. **Prerequisites:** Business Administration 302, 305, 356; Computer Science 123.

W7 Governmental Accounting (3)
Accounting systems of institutions and various governmental units. Fund transactions, revenues, and expenditures, appropriations, and form and content reports. **Prerequisites:** senior standing or permission of instructor.

408 Accounting Information Systems
Review of the strategies, goals and methodologies available for designing, installing, and evaluating accounting information systems. **Prerequisites:** Computer Science 123; Business Administration 304, 305, 356.

409 Accounting Problems (3)
Advanced accounting problems, including problems in areas covered by the C.P.A. examination. **Prerequisite:** 405.

410 Industrial Relations (3)
Union-management relations including the legal framework, the techniques and practices used and a bargaining simulation. **Prerequisite:** 332; senior standing.

415 Industrial Marketing (3)
Determination of market opportunity; planning of marketing effort; marketing for industrial and consumer goods and services from producers to users. Techniques of distribution, marketing decisions, factors influencing consumer and industrial buying behavior, market structure and market potential. **Prerequisite:** 313.

417 Distribution Channels (3)
Distribution channels, formal and informal business organizations which affect the transfer of possession and title of goods and services from producers to users. The development of channels, functional and behavioral dimensions, environmental forces, power, conflict and communication within the channel. Current and future trends in the development and management of channels. **Prerequisite:** 313.
422 Financial Institutions (3)
Capital markets and institutions; sources and uses of capital funds; impact of changes in flow of funds on the economy. Prerequisites: Economics 101, 102; Business Administration 202, senior standing or permission of instructor.

423 Financial Management
A case course which affords the undergraduate an opportunity to apply financial principles to actual situations. The course is continuation of the topics in 302 and 321 using the case discussion approach. Prerequisites: 302, 321.

424 Theory of Finance
A lecture/discussion course which teaches the theory behind financial decisions. Topics covered include investments and securities, capital budgeting, risk analysis and application of operations research to finance. Prerequisites: 302, 321.

434 Problems in Personnel Management (3)
A case course in human relations dealing with problems drawn from actual business experience. Prerequisite: 332.

435 Wage and Salary Administration (3)
Job evaluation using both quantitative and nonquantitative methods. Control of wages and salaries. Wage incentive principles and systems. Actual application of job evaluation techniques. Prerequisite: 315, senior standing or permission of instructor.

438 International Management (3)
A case course exploring the differences in managerial techniques involved in operations in foreign cultures. Particular attention given to the constraints imposed as a result of different cultural, educational, legal, and economic systems. Prerequisite: 315.

440 Business Policy (3)
An integrating course using cases for management decision-making and management simulation. A culminating educational experience for the senior. Prerequisites: senior standing; 302, 311, 313; 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. Course graded on a pass-fail basis. Prerequisite: senior standing.

450 Marketing Research (3)
Study of the role of research in marketing decision-making; the research process; scientific method; analysis and interpretation of research findings. Prerequisites: 212 and 313.

451 Production Planning, Purchasing, and Control (3)
A study of the principles and practices of production, planning and control covering objective policies and techniques relating to material purchasing and management; the planning and control of production in a variety of types of manufacturing systems. Prerequisite: 354 or permission of instructor.

452 Problems in Production (3)
A case course designed to show the relationship of production problems to other functions of business such as finance, personnel, and marketing. Prerequisite: 302, 356, senior standing or permission of instructor.

454 Comparative Industrial Systems (3)
Observes, discusses and describes the problems, techniques, and economics of a variety of different types of production organizations. Combines class work with field trips through factories in the area. Prerequisite: 354 or permission of instructor.

456 Business Forecasting (3)
A basic analysis of the forecasting process and an exposure to the fundamental techniques. A series of business cases to illustrate forecasting in such areas as marketing, production, finance, and general management. Emphasis on forecasting at the firm and industry level. Computer applications for the individual forecasting techniques. Prerequisites: 302, 311, 313 or permission of instructor.

459 Business Intern Program (3)
Opportunity to integrate and apply specialized disciplinary skills to practical business problems of company-wide scope. Student interns are assigned as consultants to assist businesses under supervision of a faculty member. Prerequisite: Completion of 302, 311, 313, 315, and permission of instructor. Maximum credit 6 hours.

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. Prerequisite: 313.

495 Honors (1-3)
Maximum credit three hours.

497 Research (1-3)

498 Individual Studies (1-3)

499 Group Studies (1-3)

Economics

Professor Keilany, Head
Professor Armstrong
Associate Professor Ciffin
Assistant Professors Birch, Bonney, Larson, Pratt, Rabin

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 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than economics (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity.
Foreign language through second college year

Major:
Business Administration 211 and 212 or Mathematics 210
24 hours economics including 101, 102, and electives
Electives to complete 128 hours
Maximum of 72 hours accepted in School of Business Administration
with maximum of 42 hours in economics
See page 157 for typical course of study in economics (B.A.).

Economics (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than economics (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 125 and 126 or Mathematics 150
Business Administration 201
Business Administration 211 and 212
Computer Science 100
15 hours core courses including Economics 101, 102, 301, 324, 325
15 hours from the following: Economics 304, 306, 317, 425, 426, 429, 444, 453, 455, 460, 465, 470, 489r, 499r
Business Administration 202, 256 (other courses may be substituted with approval of department)
Electives to complete 128 hours
Maximum of 72 hours accepted in School of Business Administration
See page 157 for typical course of study in economics (B.S.).

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.

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.

199r Special Projects (1-3)
Individual or group projects. Maximum credit three hours.

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. Prerequisites: 101, 102.

304 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 policies. Prerequisites: 101, 102.

306 Public Finance (3)
Public expenditures and revenues, principles of taxation, public debt, and fiscal policy. Prerequisites 101, 102.

317 Manpower Economics (3)
Labor problems in the United States and attempts at their solution by employers and government. 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. 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. Prerequisites: 101, 102.

425 Industrial Organization (3)
The structure of industry, business conduct, and economic performance; analysis of antitrust law and government regulation. Prerequisites: 101, 102.

426 Comparative Economic Systems (3)
Communism in Russia, socialism in England, and capitalism in the United States; fascism and other economic systems. Prerequisites: 101, 102, or graduate standing.

429 Managerial Economics (3)
The solution of business problems by use of economic theory, accounting, marketing methods, financial techniques, etc. Prerequisites: Economics 101, 102; Business Administration 212. Office Administration majors exempt from 212.

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. Prerequisites: 101, 102 or graduate 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, Wickell, Knight, Schumpeter, and Keynes. 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. Prerequisites: 101, 102.

460 Introduction to Econometrics (3)
Introduction to the use of mathematical models in economic analysis and the statistical verification of those models. Prerequisites: Business Administration 212; Economics 101, 102 or equivalent.

465 Economics of Regulated Industries (3)
Presentation and analysis of economic aspects of regulation of public service industries. 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.

495r Honors (1-3)
Maximum credit three hours.

497r Research (1-3)

498r Individual Studies (1-3)

499r Group Studies (1-3)
Office Administration

Professor Cudd, Director of the School of Business Administration
Associate Professor Soskis
Assistant Professors Hagedorn, Nixon

Office Administration (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 125, 126
Computer Science 100
36 hours common body of knowledge in economics and business administration including Economics 101, 102, Business Administration 201, 202, 211, 212, 302, 311, 315, 335 and 440.
Completion of one of following concentrations:
For Secretarial concentration—25-30 hours office administration including 121, 125, 219, 223, 227, 228, 229, 309, and 400.
Students who have had previous training in shorthand or typewriting may be exempted from Office Administration 121, 125.
For Office Management concentration
18-21 hours office administration including 121, 219, 309, 400, 410, 450 and 460.
Students who have had previous training in typewriting may be exempted from Office Administration 121.
(Maximum of 72 hours accepted in economics, business administration and office administration on either concentration)
Electives to complete 128 hours.

Office Administration Certificate
60 semester hours with 2.00 average both overall and at UTC; last 30 hours in residence at UTC
English 101
6 hours humanities electives
Computer Science 100, 123
Business Administration 103, 201, 335
Economics 101, 102
Office Administration
109, 219, 220, 223, 227, 228, 229
Students not meeting the prerequisite standards for advanced typewriting and shorthand (45 words a minute and 90 words a minute, respectively) will be required to take appropriate courses from Office Administration 121, 125, and 223.

The office administration curriculum leading to the Bachelor of Science degree is designed to prepare students for careers as secretaries or office managers in business. The curricula provide essential skills for employment opportunities in either of the following concentrations:

Office Management

For the office management major, the first two years of study provide a foundation in areas outside the field of business. The core subject matter in management is taken in the junior and senior years.

See page 158 for typical course of study in office administration.

109 Business Mathematics (3)
Fundamental fractions, percentage, interest, bank discount, insurance, graphs, square root, and other aspects of mathematics important in business control and statistical research.

121 Elementary Typewriting (3)
Includes learning the keyboard, operating the parts of the machine, writing of different styles of business letters, manuscript copy, and tabulation. Class hours three. Laboratory hours two. Terminal speed required is 30 wpm three minute timing with three errors.

125 Elementary Shorthand (3)
A study of Gregg shorthand theory, with emphasis on reading and dictation from the beginning. Class hours four. Prerequisites: typing speed of 30 net words a minute or co-requisite: 121.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

219 Business Communications (3)
An introduction and basic overview of communication, including verbal and nonverbal communication. A review of clear writing, grammar, diction, and rhetoric. A study of the mechanics and psychology of business letters. Pre-or co-requisite: English 101.

220 Office Machines (3)
Designed to familiarize students with office equipment to include duplicating machines, MTST, and transcribing machines. Class hours three. Laboratory hours two. Prerequisite: 121 or one year of high school typewriting.

223 Secretarial Office Typewriting (3)
A thorough review of writing business letters, manuscript copy, tabulation, business reports, legal documents and MTST included. Emphasis on speed development and production. Class hours three. Laboratory hours two. Prerequisite: 121 or one year of high school typewriting. Terminal speed required is 45 wpm five minute timing with five errors.

1X7 Intermediate Shorthand (3)
Dictation and transcription with a review of theory and with a speed of 90 words a minute on new material with 59 percent accuracy required. Class hours three. Prerequisites: 121, 125 or two years of high school typewriting and shorthand.

228 Transcription (3)
Dictation and transcription with a further review of theory and vocabulary; speed of 100 words a minute on new material with 95 percent accuracy required. Prerequisite: 223 and 227.

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.

309 Records and Information Management (3)
Study of problems related to the selection of equipment and systems used for information storage and retrieval, including automated and non-automated filing; microfilming systems; tape processing; forms design; retention and disposal of records; and supervision, standards and work measurement.
400 Office Management (3)
Office management and organization; office controls; forms and layout; management supervision of personnel and service units. Prerequisite: 219 or permission of instructor.

410 Administrative Communications (3)
Study of business communications including inter-office memos; minutes of meetings; newspaper articles; oral presentations; and report writing, including tabular and graphic presentation of data essential to writing formal business reports.

450 Office Information Systems (3)
Study of the relationships of the various types of office systems and the application of classroom learning to the problems of analyzing and determining appropriate office systems for various kinds of business. Prerequisite: 309 or permission of instructor.

460 Seminar: Problems in Office Management (3)
Selected topics from the following: systems analysis, form design, records, mechanization, correspondence, supervision, work simplification, training work measurement. Prerequisite: 400 or permission of instructor.

497r Research (1-4)
498r Individual Studies (1-4)
499r Group Studies (1-4)

Business Education

For Graduate Students Only

518 Principles of Business and Vocational Education (3)
Business education—historical and philosophical perspectives; development and evaluation of secondary business in its relationship to business education from elementary through adult education offerings; role, scope, and characteristics of vocational education; philosophy, organization, and administration of vocational business education.

519 Contemporary Issues in Business Education (3)
Study of the current problems and trends in business/vocational education with special emphasis on the implications and results of research studies relative to contemporary issues.

Master of Business Administration

(Graduate Division regulations which can be found on pages 35-41 of this catalog apply to MBA students.)
The Master of Business Administration program is primarily designed to further the self development of executives for business, government and industry by providing broad and thorough insights into basic management problems. While it satisfies needs of students with undergraduate degrees in areas other than business administration, the program also is flexible enough to offer business administration majors a significant graduate education. Some courses of specialized natures are offered, but overall emphasis is placed on breadth and integration of knowledge. Stress is also on understanding the varied natures of organizations as entrepreneurial systems operating within the larger environment. An ultimate goal is to prepare decision makers to recognize, analyze and solve specific problems.

The MBA program is designed for students with any undergraduate major. The 24 semester hours of leveling courses are for those lacking an undergraduate background in the various areas of business administration. The leveling courses required for each student will be determined by an MBA advisor at the time the student is admitted to the program. These courses are also appropriate for those students who wish to review the subject matter in business administration that they studied as undergraduates.

All students must complete 36 semester hours of advanced courses beyond the leveling courses. Twenty-four of these hours are taken in eight required courses. The remaining 12 hours may be taken as electives. The student may choose to take nine or more elective hours so as to complete an area of concentration. Electives must be chosen in consultation with and approved by an MBA advisor. At most, six hours of courses may be taken at the 400 level.

Admission and Continuation
Applicants for admission must submit 2 copies of transcripts of all previous college work and must take the Graduate Management Admission Test (GMAT). The application is not complete until the application form, the transcripts and the GMAT score have been received by the Graduate Admissions Office. Applicants whose applications are completed after the dates indicated below but before the first day of classes will be admitted, if qualified, only if space is available in classes.

<table>
<thead>
<tr>
<th>Term</th>
<th>Date application due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>July 5</td>
</tr>
<tr>
<td>Spring</td>
<td>November 20</td>
</tr>
<tr>
<td>Summer</td>
<td>March 15</td>
</tr>
</tbody>
</table>

Students not admitted to UTC as degree or transient graduate students may not take graduate courses in business administration. Continuation regulations of the Graduate Division may be found on page 38.

Admission to Candidacy
To be eligible for admission to candidacy, a student must have completed all leveling courses and at least 12 hours (but not more than 18 hours) of advanced courses. Two of the courses completed before admission to candidacy must be chosen from Economics 520, Business Administration 511 and 555.
Transfer Credit:

Courses completed at other universities for graduate credit may be considered for use in the MBA program. Generally the courses must form a logical part of an MBA program. Students wishing consideration of transfer credit should apply for approval of the credit at the earliest possible time. Those requesting transfer credit must be prepared to provide a copy of the graduate catalog of each school at which courses requested for transfer were or will be completed as well as other information that the MBA committee may need in making a decision.

Twelve of the last eighteen hours of the MBA program must be completed at UTC. Additional information about transfer credit may be found on page 41.

Leveling Courses

Economics 501 Concepts in Economics  
Business Administration 502 Survey of Financial and Managerial Accounting  
Business Administration 503 Statistics  
Business Administration 504 Business Finance  
Business Administration 506 Essentials of Marketing Management  
Business Administration 507 Operations Management  
Business Administration 508 The Legal Environment of Business  
Business Administration 509 Behavioral Aspects of Administration  

All leveling courses must be completed before more than six hours of advanced courses are completed.

Required Advanced Courses

Economics 520 Managerial Economics  
Business Administration 511 Business Research Methods  
Business Administration 530 Managerial Accounting and Control  
Business Administration 533 Concepts in Marketing  
Business Administration 535 Financial Management  
Business Administration 555 Operations Research  
Business Administration 570 Problems in Operations Management  
Business Administration 595 Business Policy

Concentrations

The 12 hours of electives may be used to complete a concentration in accounting, economics, finance, marketing, or production/operations management. The completion of a concentration is not required. That is, a student may receive the MBA degree without a concentration. The requirements for concentrations are given below. The appropriate leveling courses and the eight required advanced courses are required in all of the concentrations. The six hour limitation on 400 level courses applies in each of the concentrations.

Accounting

Nine hours selected from:

Business Administration 401 Advanced Accounting  
Business Administration 405 Auditing  
Business Administration 407 Governmental Accounting  
Business Administration 409 Accounting Problems  
Business Administration 547 Financial Accounting  
Business Administration 536 Accounting Information Systems  
Business Administration 532 Income Taxation and Business Decisions  
Business Administration 531 Advanced Managerial and Accounting Control  
Business Administration 538 Current Topics in Accounting  

Three hours are elective.

Economics

Six hours of required courses:

Economics 510 Macroeconomic Analysis for Business Decisions  
Economics 460 Econometrics  

Three hours chosen from 400 and 500 level economics courses other than Economics 429, 495r, 497r, 498r, 500r, or 501.

Three hours are elective.

Finance

Nine hours selected from:

Business Administration 403 Financial Statement Analysis  
Business Administration 422 Financial Institutions  
Business Administration 540 Problems in Finance  
Business Administration 544 Theory of Finance  
Business Administration 546 Investments  
Business Administration 543 Commercial Bank Management  
Economics 425 Industrial Organization

Three hours are elective.

Marketing

Nine hours selected from:

Business Administration 415 Industrial Marketing  
Business Administration 417 Distribution Channels  
Business Administration 450 Marketing Research  
Business Administration 564 Promotion  
Business Administration 565 Problems in Marketing  
Business Administration 566 Seminar in Marketing  
Economics 425 Industrial Organization

Three hours are elective.

Operations/Production Management

Six hours of required courses:

Business Administration 577 Production and Inventory Control  
Business Administration 579 Current Topics in Operations/Production Management.

Three hours selected from:

Business Administration 454 Comparative Industrial Systems  
Business Administration 556 Problems in Operations Research  
Engineering 450 Engineering Design  
Engineering 452 Engineering Economy  
Engineering 458 Industrial Plant Layout  
Engineering 552 Industrial State & Quality Control

Three hours are elective.

Graduate Business Courses

500r Independent Study in Business Administration (1-3)

502 Survey of Financial and Managerial Accounting (3)

An introduction to the concepts and principles involved in the preparation of financial reports for internal and external users, the analysis and interpretation of accounting data and its use in management planning and control.

503 Statistics (3)

Sources of data, organizing and summarizing data, sampling distributions, techniques of statistical estimation, hypothesis testing
including analysis of variance and chi-square, simple and multiple regression and Bayesian statistics.

504 Business Finance (3)
Management of funds in business, including procurement, utilization and disposition of money. Financial aids such as budgeting and breakeven analysis, financial statement analysis and capital management. Prerequisites: Business Administration 502; Business Administration 503; and Economics 501.

506 Essentials of Marketing Management (3)
Analysis, planning, strategy and control of the firm's marketing effort; topics include the role of marketing in developed society, consumer behavior, competitive behavior, social and technological change, demand analysis and measurement, and market research and model building.

507 Operations Management (3)
This problem oriented course will familiarize the student with concepts necessary to manage a transformation process both effectively and efficiently. Topics will revolve around the design, operation and control of such a system. Prerequisite: 503.

508 Legal Environment of Business (3)
A comprehensive course covering the sources and relevancy of law to business. Political and social influences upon interpretation and application of law are reviewed in the context of their impact upon business and management.

509 Behavioral Aspects of Administration (3)
Behavior in administration and within organizations based upon the findings of the social sciences. Primarily a study of human relations in organizations.

511 Business Research Methods (3)
An introduction to research methodology with emphasis upon the compilation, analysis and interpretation of data. Experiment design, research instruments and resources, sample theory and design, parametric and non-parametric tests for significance, statistical inference. Research reports. Prerequisite: 503.

526 Modern Management Systems (3)
Investigation of recent research findings in the field of management and their application to business.

530 Managerial Accounting and Control (3)
Managerial accounting principles as they apply to decision-making and control. Cost analysis, financial controls and controllership. Cases from actual business experience. Prerequisite: 502.

531 Advanced Managerial Accounting and Control (3)
A continuation of the discussion of accounting data in managerial decisions. Decision models include those dealing with pricing, product combinations, and capital budgeting. Also problems of control in the organizations, including such issues as transfer pricing and performance evaluation. Prerequisite: 530.

532 Income Taxation and Business Decisions (3)
Practices and guidelines which underlie the determination and timing of the tax liabilities, with particular emphasis on business decisions and the minimization of the corporate tax burden. Prerequisite: 502.

533 Concepts in Marketing (3)
Tools and concepts in marketing. Emphasis on a conceptual marketing foundation, development of marketing programs and strategies, and the product, pricing, and distributional elements of the marketing mix. Prerequisite: 506.

535 Financial Management (3)
A case oriented course in financial management, financing of current operations, budgeting and determination of financial needs, management of current assets, intermediate and long-term financing, capital budgeting and capital structure management. Prerequisite: 504.

536 Accounting Information Systems (3)
Accounting information systems as a means of measurement, communication, and control of business activities, the use of computers as accounting and data processing tools. Prerequisite: 530.

538 Current Topics in Accounting (3)
Examination of current topics in financial accounting, managerial accounting, capital budgeting, and non-profit accounting emphasizing the role of accounting reports as an information source to managers and financial markets.

540 Problems in Finance (3)
A case course covering techniques of financial analysis and management of short-term, intermediate, and long-term funds; short-term and capital budgeting as well as capital structure management are included. Prerequisite: 535.

543 Commercial Bank Management (3)
Theory and practice of commercial banking with attention to bank structure, management, loans, investments, and marketing bank services. The influence and setting of central banks, monetary and fiscal policy. Current problems and issues in commercial banking and banking management.

544 Theory of Finance (3)
A course to provide the theoretical basis behind financial decisions. Includes topics such as management of working capital, investment decisions, financing the firm and cost of capital. Prerequisite: 535.

546 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. Prerequisite: 535.

547 Financial Accounting (3)
This course provides to the student the knowledge to understand the concepts used in the preparation of the income statement, the balance sheet and the statement of changes in financial position and a survey of contemporary topics which might affect his use of financial statements. Prerequisite: 530.

555 Operations Research (3)

556 Problems in Operations Research (3)
Operations research methods applied to actual business situations. Preparation of cases to simulate business environment. Linear dynamic programming, inventory, queuing and simulation. Prerequisite: 555.

564 Promotion (3)
Promotional mix components of personal selling, sales management, and advertising follow examination of consumer behavior. Prerequisite: 506.

565 Problems in Marketing (3)
An application of marketing tools and concepts to problem-solving, decision-making, and determination of market opportunity; areas include demand stimulation, channel selection and evaluation, marketing research, pricing, product development, and orchestration of marketing programs. Prerequisite: 506.

566 Seminar in Marketing (3)
Seminar designed to integrate the student's understanding of marketing. A participation seminar based on student papers, invited speakers, and other activities.

570 Problems in Operations Management (3)
This case study course should strengthen the skills and abilities of the student in three areas: (1) describing and understanding the
operating processes, (2) measuring and analyzing this process, and (3) developing and evaluating plans for changing the operating process within the context of the entire organization and its strategies. Prerequisites: 507, 555.

577 Production and Inventory Control (3)
This course emphasizes the information and decision-making processes that take place in production and inventory control and gives insight into these processes in industry. Prerequisite: 507.

579 Current Topics in Operations/Production Management (3)
A study of current topics and trends in the operations/production management area.

595 Business Policy (3)
A two part course composed of a business simulation game and cases on executive decision-making involving all the functional areas of business administration. May be taken only after the admission to candidacy and during the final year of work.

597r Individual Studies (2-4)
Designed to enable students to study selected topics in depth. Requires a written outline of work to be done, a statement describing the competencies to be developed and the method of assessment to be used in evaluation. Prerequisites: Approval of advisor and the Graduate Committee in Business.

598r Research (3)
Designed to enable students to conduct independent research. Prerequisites: Admission to candidacy, approval of advisor and the Graduate Committee in Business and submission of a formal prospectus two weeks prior to registration.

599r Thesis (3-6)
The development of a product of thesis magnitude and quality. Departmental and library copies of thesis required. Registration to be completed in one term or in two consecutive terms. Prerequisites: Admission to candidacy, approval of advisor and the Graduate Committee in Business and submission of a formal prospectus two weeks prior to registration.

Graduate Economics Courses

500 Independent Study in Economics (1-3)

501 Concepts in Economics (3)
National income; money and banking; fiscal and monetary policy; supply and demand; resource allocation; market structure; distribution of income.

502 Managerial Economics (3)
The economics of the individual firm in its decision-making process; price and cost theory of the firm and industry from the viewpoint of management decision-making. Prerequisites: Economics 501, Business Administration 503.

507r Topics in Economics (3)
Selected topics chosen by the instructor. Repeatable with permission. Maximum of 6 hours credit toward MBA. Prerequisite: 501.

509 Microeconomic Theory (3)
Demand analysis; market structures; production and cost; distribution of income. Prerequisite: 324 or 520.

597r Individual Studies (2-4)
Designed to enable students to study selected topics in depth. Requires a written outline of work to be done, a statement describing the competencies to be developed and the method of assessment to be used in evaluation. Prerequisites: Approval of advisor and the graduate committee in business.

599r Research (3)
Designed to enable students to conduct independent research. Prerequisites: Admission to candidacy, approval of advisor and the Graduate Committee in Business and submission of a formal prospectus two weeks prior to registration.

599r Thesis (3-6)
The development of a product of thesis magnitude and quality. Departmental and library copies of thesis required. Registration to be completed in one term or in two consecutive terms. Prerequisites: Admission to candidacy, approval of advisor, and the Graduate Committee in Business and submission of formal prospectus two weeks prior to registration.

Computer Science Program

Associate Professor Davis, Coordinator
Assistant Professor M.R. Jones

Computer Science offers service courses to many departments as well as two tracks which lead to certificates in a business concentration or a technical concentration.

Computer Science Certificate: Business
30 hours of course work at UTC with a 2.00 average
Computer Science 101, 121, 201, 301, 350
Business Administration 211
Mathematics 125, 126
6 hours from Business Administration 201, 202, 212, 303, 305, 306, 356, Computer Science 231, or Economics 101, 102

Computer Science Certificate: Technical
30 hours of course work at UTC with a 2.00 average
Computer Science 101, 121, 201, 301, 350
Business Administration 211, 212
Economics 101, 102
Mathematics 140, 150, 160

See page 159 for typical course of study in computer science.

100 Computers and Problem Solving (2)
Introduction to problem solving and computer programming concepts using the conversational timesharing language BASIC. Data organization, flowcharting, and the design of algorithms from several disciplines with computer solutions of selected assignments.

101 Computer Fundamentals (3)
An introduction to the use of a digital computer and the language COBOL. Emphasis on computer applications. Primarily for the non-mathematically oriented student.

121 Computer Programming I (3)
An introduction to digital computing techniques using FORTRAN IV. Flowcharting, programming and documentation of numerical and non-numerical algorithms. Introduction to concepts such as computer hardware and computer application areas. Prerequisite: two years high school algebra or Mathematics 107.

122 Computer Programming II (3)
Computing Systems; procedures, storage allocation, parameter access, debugging techniques, introduction to algorithmic analysis,
string processing, data structures and internal search/sort methods, using PL/1. *Prerequisite: 121.*

123 Introduction to Data Processing (3)
General overview of the data processing field using basic principles, unit record and electronic data processing. Topics include methodology, terminology, systems and procedures, file organization, peripheral equipment and central processing unit components.

199r Special Projects (1-4)
Individual or group projects. *Maximum credit four hours.*

201 Assembly Language Programming (3)
Computer structures; symbolic coding, and assembly systems; macros; program segmentation and linkage; disk and tape applications; file organization; operating systems introduction. *Prerequisite or co-requisite 122 or equivalent.*

231 Computer Problems in the Sciences (3)
Computer algorithms, and the complete preparation and solution of selected mathematics and science problems. Solutions of equations; interpolation and approximations; sequences and series; numerical differentiation and integration; numerical solution of initial value problems in differential equations. *Prerequisites: Mathematics 150; Computer Science 121.*

251 Introduction to File Processing (3)
Functions of file systems, file system organization and structure, analysis of file systems, introductory data management concepts, job control language. *Prerequisite: 122.*

252 Introduction to Computer Organization (3)
Basic digital logic design, coding, number representation and arithmetic, mechanics of information transfer and control within a digital computer system. *Prerequisite: 201.*

280 Accelerated COBOL (3)
A study of standard and advanced methods of computer programming in business applications; emphasis on the organization and processing of direct access storage device files using COBOL. *Prerequisite: 251: credit not allowed in both 101 and 280.*

301 Systems Programming (3)
Structure and design of programs whose inputs are programs. Assemblers, interpreters, compilers, generators, input/output control systems, supervisors. Formal programming languages, syntactic descriptions, symbolic functions and manipulations. *Prerequisite: 252.*

312 Data Structures (3)
Description of data bases and structures; concepts of records, files, trees and lists; sorting, searching and merging of information files; referencing and cross-referencing of files. *Prerequisite 251.*

350 Software Engineering (3)
Organization and scheduling of software engineering projects. Designing, coding, and debugging program components and synthesizing them into a tested, documented program product. *Prerequisite: 301.*

360 Theory of Computability (3)
Introduction to abstract machines and languages; Turing machines and computability theory; relevance of the theory to practical problems. *Prerequisites: Computer Science 252, 312, or Mathematics 303.*

380 Computer Graphics (3)
Computer Graphics systems; systems software and data structures for graphics devices and display processors. *Prerequisite: Computer Science 231 or Engineering 225.*

430 Topics in Simulations (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 optimizations; applications using simulation languages such as GPSS and GASP; comparison of simulation languages. *Prerequisite: Permission of instructor.*

435 Data Base Information Systems (3)
Concepts and methods in the definition and management of large integrated data bases for organizational information systems; functions and objectives of existing file and data management systems; analysis of proposals for new data management software; data base design; data base administration and security. *Prerequisite: 290, or 251 and 101.*

450 Operating Systems (3)
Familiarization with the major concepts of operating system principles. *Prerequisite: 301.*

460 Computer Architecture (3)
Computer organizations and structures; data processing systems; basic digital circuits; data representation, digital storage and accessing; control functions; input/output facilities; systems organizations. Multiprogramming, multiprocessing, time sharing and real time systems. *Prerequisite: 450.*

470 Computer Laboratory - Practicum (6)
Supervised internship in a computer science setting related to a student’s academic and/or career goals; concurrent two-hour integrative seminar emphasizing issues common to field experience settings. *Prerequisites: 301, 312, and either 280 or 231.*

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)
School of Education

Professor Stinnett, Director of the School of Education
Professors B. Benson, R. Benson, E. Davis, Hyder, C. Temple, Whittacre
Associate Professors T. Bibler, W. Butterfield, L. Davis, DeVivo, Hales, Kingdon, Merricks, Renneisen, Ruby, Assistant Professors Baker, Fowler, Hunt, Loewen, McCullough, Quarles, Slagle, True, Wofford
Instructors N. Bibler, Rowe

Organizational Description

The School of Education is an educational component within the College of Professional Studies. All programs leading to initial certification by the Tennessee State Department of Education are administered through the School. Additionally, programs in Community Counseling and Recreation Education are also administered through the School of Education.

The School of Education is subdivided into four departmental units for academic programming, communications, and administrative accountability. Each unit has a department head who serves as the official spokesperson, academic leader, and administrative head responsible for all programs, faculty, and activities assigned to that particular department. Since a department may have several academic programs or activities within its jurisdiction, certain faculty are identified as program leaders of specific program areas. Names of the program leaders may be obtained by contacting the departmental office in which the program is located or the School of Education Office.

An administrative-organizational chart is provided for clarification.
Recommendation For Teacher Certification

The University will recommend for teacher certification and for graduation with a teaching major only those students who earn at least a 2.00 academic average in their teaching major area and at least a 2.00 academic average in their professional education courses offered for certification or required for graduation and meet all requirements of appropriate approved program. Certification requirements for Georgia include a minimum of 'C' in each professional education course. These requirements apply to both undergraduate (B.A. and B.S.) and post-baccalaureate students. Programs at UTC leading to initial teacher certification are accredited by the National Council for Accreditation of Teacher Education.

The specific requirements for initial certification in a program are dependent upon the approved programs as certified by the Tennessee State Department of Education. Students seeking certification must meet the academic and endorsement requirements in effect at the time they apply to the State Department for certification. Current catalog requirements reflect only the certification requirements in effect at the time the catalog is printed. These requirements may change by the time a student applies for certification.

Admission to Teacher Education

Applicants who give evidence of possessing qualifications and characteristics reasonably expected for entry into the teaching profession will be admitted to the teacher education program. Selection of qualified students is made on the basis of application during the sophomore year, with the exception of transfer students who are required to complete a semester of study at the University before their applications will be reviewed. APPLICATIONS MUST BE FILED NO LATER THAN THE STUDENT'S COMPLETION OF THE FIRST SEMESTER OF THE JUNIOR YEAR.* Freshman and sophomore students, prior to formal application to the teacher education program, must consult with an advisor in the School of Education to plan their programs. This procedure applies to every student seeking teacher certification.

Post-baccalaureate students must meet the standards set by the University for admission as well as the requirements of the School of Education. The student who has obtained a degree at another institution and wishes to be recommended for certification by this institution may be required to take at The University of Tennessee at Chattanooga additional courses and student teaching or practicums necessary to demonstrate competency in the appropriate areas of certification.* Programs leading to certification are approved by UTC and the State Department of Education. Recommendations for certification through UTC are made only through the approved program approach. Any student seeking certification should consult with the certification officer in the School of Education located in Hunter Hall, Room 314.

A student who wishes to be admitted to the teacher education program (TEP) must file a formal application with the School of Education, present a 2.25 academic average both overall and on courses at UTC, demonstrate competency in basic English communication skills, demonstrate competency in reading skills, show evidences of physical fitness and emotional maturity as well as a professional commitment to education and demonstrate high moral character. In addition, individual certification programs may have specific requirements in relation to their academic specializations. Each student is expected to file with the School of Education his or her current medical examination record signed by a licensed physician. A speech and hearing screening test is also required.

The TEP application must be approved one full semester prior to registration for any course for which admission to the Teacher Education Program is a prerequisite.* The School of Education will notify each applicant of the action taken on his or her application.

The professional semester schedule in the Education sequence consists of the following courses for the program listed below:

- Elementary Education: 400, 404, 405.
- Secondary Education: 430, 431, 438.
- Special Education: 440, 460, 461, 469.
- Early Childhood: 400, 404, 419.

Elementary education majors will be scheduled in dual school placements, Education 405, for the full semester. The student will be assigned to both an inner-city school and to a suburban or rural school. Each placement will involve eight (8) weeks. Education 400 and 404 will be scheduled on Tuesday and Thursday afternoons during the student teaching period.

Early Childhood majors will be scheduled in Education 419 for the full semester. The student will be assigned eight (8) weeks in a kindergarten classroom placement, and eight (8) weeks in an elementary classroom placement. Education 400 and 404 will be scheduled on Tuesday and Thursday afternoons during the student teaching period.

Secondary Education majors will be scheduled in Education 430 and 431 during the first eight (8) weeks of the professional semester and in Education 438 in second eight (8) weeks of the term.

Special Education majors will be scheduled in Education 440, 461 and 465 during the first eight (8) weeks of the semester and in Education 469 during the second eight (8) weeks of the term.

The student must obtain a 2.00 minimum grade point average on block courses as prerequisite to continuation.

A student who plans to teach outside of Tennessee is strongly urged to check certification requirements with the appropriate State Department of Education before the end of the sophomore year in order that he

*Under special circumstances, policies, procedures, and requirements for admission to the TEP may be waived at the discretion of the director of the School of Education.
or she may plan a program appropriately. Requirements to meet out of state certification will be in addition to UTC requirements.

Admission to Student Teaching

Applications for admission to student teaching, (Education 405, 406, 419 or 438, 439, 469) must be filed with the School of Education ten (10) months preceding the professional semester.* For admission to Education 405, 406, 419, 438, 439, 469, candidates must have a 2.25 academic grade point average both overall and at UTC, evidence reasonably sound mental and physical health, acceptable speech, and have approval of the director of student teaching, and the recommendation of the major department. Students must meet all of the above requirements and be admitted to the teacher education program at least one full semester prior to registration for the semester in which they plan to student teach. All elementary, early childhood, and special education majors must demonstrate competency in manuscript and cursive letter formation. Instruction and remediation, if necessary, are provided so that this competency can be met. Student teaching may be scheduled according to the schedule below:

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Spring Semester</th>
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</thead>
<tbody>
<tr>
<td>Art</td>
<td>Business</td>
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<tr>
<td>Home Economics</td>
<td>English</td>
</tr>
<tr>
<td>Science</td>
<td>Foreign Language</td>
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<tr>
<td>Social Science</td>
<td>Health &amp; Physical Education</td>
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<td></td>
<td>Mathematics</td>
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<tr>
<td></td>
<td>Music</td>
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<td></td>
<td>Special Education</td>
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</tbody>
</table>

Elementary education, including early childhood, may be scheduled in either the fall or spring semester.

General orientation conferences on student teaching will be held for all prospective student teachers during the semester preceding their student teaching. Prospective student teachers are required to attend the scheduled conferences. The dates of these conferences will be posted on the School of Education bulletin board located outside the School of Education office, Hunter Hall, Room 313. It is the responsibility of the student to learn the times and dates of these conferences, and to attend.

"Under special circumstances, policies, procedures, and requirements for admission to student teaching may be waived at the discretion of the director of the School of Education.

Learning Center

The School of Education makes available to any regularly enrolled student the services of the Learning Center. Students are provided free instruction in the areas of reading skills, vocabulary development, comprehension, study skills, writing skills and penmanship (teaching of/in the elementary school). The center operates on an appointment basis and provides initial diagnostic services to identify weaknesses.

Certification Office

The Certification Office is responsible for processing initial applications for certification to teach in the State of Tennessee. Students should refer questions concerning certification to the Certification Officer. This office, located in Hunter Hall, room 314 A, will also provide assistance in processing certification applications to states other than Tennessee.

Career Education Laboratory

The Career Education Laboratory contains various types of materials for use by students in counseling, practitioners in the field, and teachers who are implementing career education in their curriculum. The laboratory 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 laboratory is located in Hunter Hall.

Clearinghouse on Metric Education for Tennessee (COMET)

Organized in part under a grant from the U.S. Office of Education, COMET provides information, materials and services to organizations planning metric education programs in Tennessee. The Clearinghouse is housed in Hunter Hall and has instructional facilities for conferences and workshops. Phone request for materials or workshops can be made by calling: (615) 755-4211.

Certification Programs

The School of Education offers undergraduate degree programs leading to initial certification in the following areas:

Elementary education (grades 1-9)
Early childhood education (grades K3)
Art education (grades 1-12)
Music education (grades 1-12)
Secondary education (grades 7-12) with teaching majors in biology, business, chemistry, earth & space science, economics, English, foreign language (French, Latin or Spanish), health and physical education, history, home economics, mathematics, physics, political science, psychology and sociology and anthropology
Special Education (General)
In addition to initial certification, the School offers the following certificate endorsement areas:

Elementary education; early childhood education- secondary education: biology, chemistry, earth and space science, economics, English, foreign language (French, German, Latin, Spanish), general science, guidance associate, health (K-12), physical education (grades 7-12), history, home economics, mathematics, physical education (grades 1-9), physics, political science, psychology, elementary or secondary reading, special education, sociology, social science. See Certification Officer for details.

Programs leading to certification requiring a graduate degree are listed on page 35.
The degree requirements and typical four (4) year schedule of classes for each program follows.

Art Education (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses other than art: one from humanities, one from fine arts, and one from either (3 hours each), plus courses in humanities/fine arts to total 12 hours in three fields other than history and art

Category C
2 approved behavioral or social science courses (6 hours plus one course to total 9 hours behavioral or social science in two fields other than education; for certification purposes, 3 of the hours may be in history

Category D
2 approved natural science courses to total 8 hours in natural science plus Mathematics 115

Category E
1 approved interdisciplinary or non-western course (3 hours)

Electives to complete 128 hours

See page 160 for typical course of study in art education.

Early Childhood Education (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours), plus courses in communications and language arts to total 12 hours; must include English 228 with remaining hours from Theatre and Speech 103, 107, 108, 109, 309, 315, English 360, 361, or 460

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses in humanities/fine arts to total 15 hours in three fields other than history; must include Art 222 and Music 321

Category C
2 approved behavioral or social science courses (6 hours) plus courses in behavioral or social sciences to total 12 hours in two fields other than education; for certification purposes, 6 of the hours may be in history

Category D
2 approved natural science courses and one course from Biology 306, 313, Environmental Studies 150, or Geography 407, plus an additional natural science course to total 12 hours

Category E
1 approved interdisciplinary or non-western course (3 hours)

Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 115, 116
12 hours from health, physical education, family relations including:
4 hours minimum in health: HPE 154 and 302 required
4 hours physical education from HPE 330 required; maximum 2 hours physical activity permitted.

Remaining hours from additional Health or Physical Education theory courses (100, 202, 224, 225, 436), Home Economics 105, or Sociology 215

30 hours Education including 102, 202 or 203, 207, 301, 404, 403, 404, 410, 413, 420

2.25 average in education courses and in all courses outside of education

Electives to complete 128 hours

See page 160 for typical course of study in early childhood education.

Elementary Education (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours), plus courses in communications and language arts to total 12 hours; must include English 228 with remaining hours from Theatre and Speech 103, 107, 108, 109, 309, 315, English 360, 361, or 460

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each) plus courses in humanities/fine arts to total 14 hours in three fields other than history; must include Art 222 and Music 321

Category C
2 approved behavioral or social science courses (6 hours) plus courses in behavioral or social sciences to total 12 hours in two fields other than Education; for certification purposes, 6 of the hours may be in history
Category D
2 approved natural science courses and one course from Biology 306, 313, Environmental Studies 150, or Geography 407 plus an additional natural science course to total 12 hours

Category E
1 approved interdisciplinary or non-western course (3 hours)

Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 115,116 (alternative: Mathematics 195 and 150 or 195 and upper level mathematics course)
12 hours from health, physical education, family relations including:
4 hours physical education from Health Education 302 (required), 100,154,303, or Home Economics 105
4 hours physical education from HPE 330 required; maximum 2 hours physical activity permitted.
Remaining hours from additional health or physical education theory courses or Sociology 215
32 hours Education including 102,203,207,301,400,403,404,405,420
2.25 average in education courses and in all courses outside of Education
Electives to complete 128 hours
See page 160 for typical course of study in elementary education.

Music Education (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses other than music: one from humanities, one from fine arts, and one from either (3 hours each), plus courses in humanities/fine arts to total 12 hours in three fields other than history

Category C
2 approved behavioral or social science courses plus one course to total 9 hours behavioral or social science in two fields other than education; for certification purposes, 3 of the hours may be in history

Category D
2 approved natural science courses to total 8 hours in natural sciences, plus Mathematics 115

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Music 107, 108, 207, 208, 209, 210, 315, 316
20 hours applied music including: 8 semesters (8 hours) ensemble participation
8 semesters (8 hours) primary instrumental or vocal study or 6 hours primary and 2 hours secondary
Music 131,132 plus 2 hours applied piano study for piano proficiency
One of the following options:
(1) Instrumental emphasis: Music 221, 3 hours of 223r; 3 hours of 224r; 2 hours of 225r; 226; 307 or 326; 325, 327, 328
(2) Vocal emphasis: 133,134,221,1 hour reach of 223r, 224r,225r; 307, 309, 310, 333, 2 hours applied piano study in addition to piano proficiency study
26 hours education including 102,203, or 204,207,301,406,430,432, 439, Music 321 (Education 432, 439 offered in spring only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours
See page 175 for typical course of study in music education.

Secondary Education: Biology (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education; for certification purposes, 3 of the hours may be in history

Category D
2 approved mathematics or natural or applied science courses other than biology (6 hours; approved related courses below may apply

Category E
1 approved interdisciplinary or non-western course (3 hours)

Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 125,126 or 140,150; Recommended: 140,150 for prospective graduate students
16 hours chemistry including one semester organic chemistry
Recommended: two semesters organic chemistry
Physics 103, 104 or Geology 111, 112
Recommended: Computer Science 100 or 121
26 hours of biology including 121, 122: 8 hours at the 300 level or above, at least 3 hours must be at the 400 level, and one course from each of the following areas:
Organismic biology 207, 208, 225, 226, 311, 342
Physiology: 192, 304, 328, 405 421, 435, 469, 470
Chemistry 466
Population interaction: 306, 352, 416,450
Genetics and development: 301, 315, 325, 425, 426
26 hours education including 102,204,207,301,430,431,438 (Education 431, 438 offered in fall only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours
See page 161 for typical course of study in biology education.

Secondary Education: Business (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than History

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than educational (approved related courses below will apply); for certification purposes, 3 of the hours may be in history

Category O
2 approved natural science courses to total 8 hours in natural sciences, plus Mathematics 115 or 6 hours approved mathematics

Category E
1 approved interdisciplinary or non-western course (3 hours)
1 additional course outside teaching field from communications, humanities, mathematics, natural or behavioral sciences

Physical Education 021 plus one additional physical education activity

Major and related courses:
Home Economics 328
Economics 101, 102
Business Administration 103 or 325, 201, 202, 335
Office Administration 109, 121, 219, 223

One of the following areas:
Area 1: Office Administration 125, 220, 227, 228, 229
Area 2: Two additional accounting courses for minimum of 10 hours in accounting, Business Administration 336, 3 hours economics elective (hours in economics must total 12 for endorsement in this area)

26 hours education including 102, 204, 207, 301,430,431,438 Education 431, 438 offered in spring only)

2.25 average in teaching fields and in education courses
Electives to complete 128 hours

See page 161 for typical course of study in business education.

Secondary Education: Chemistry (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education; for certification purposes, 3 of the hours may be in history

Category D
2 approved mathematics or natural or applied science courses other than chemistry (approved related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics 140,150,160
8 hour sequence in biology or geology (must have 8 hours biology for general science certification)
8 hours physics: 103,104
24 hours chemistry including 121, 122, 241, 351, 352, 371
Recommended electives: Computer Science 100 or 121
Chemistry 443, 466
26 hours education including 102,204,207,301,430,431,438 (Education 431, 438 offered in fall only)

2.25 average in teaching fields and in education courses
Electives to complete 128 hours

See page 161 for typical course of study in earth and space science education.

Secondary Education: Economics* (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education and economics; for certification purposes, 3 of the hours may be in history

Category D
2 approved natural science courses to total 8 hours in natural sciences, plus Mathematics 115

Category E
1 approved interdisciplinary or non-western course (3 hours)

1 additional course outside teaching field from communications, humanities, mathematics, natural or behavioral sciences

Health and Physical Education 021 plus one additional semester physical education activity

*Students seeking teacher certification in Tennessee in the area of social studies must complete 6 semester hours in American history, 6 semester hours in European or world history, and 6 semester hours each in four of the following fields: economics, geography, political science, sociology, and psychology (must include Psychology 101 and 331 for psychology endorsement).
Major and related courses:
24 hours economics including 101, 102, 301, 324, and Business Administration 211
29 hours education including 102, 204, 207, 301, 421, 430, 431, 438 (fall only 431 and 438)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours

See page 162 for typical course of study in economics education.

Secondary Education: English (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history and English

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education; for certification purposes, 3 of the hours may be in History

Category O
2 approved natural science courses to total 8 hours in natural sciences, plus Mathematics 115

Category E
1 approved interdisciplinary or non-western course (3 hours)
1 additional course outside teaching field from communications, humanities, mathematics, natural or behavioral sciences

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
3 hours from Theatre and Speech 103, 107, 108, 109, 309
33 hours English including: English 203, 207 (or 442), 229; one course from English 211, 212; one course in American literature—one course from English 360, 361, or 460; English 410 and one course from 408, 412—one of which should be taken in the last term prior to student teaching; nine (9) additional hours of English, six (6) of which must be from 300 and 400 levels.
29 hours Education including 102, 204, 207, 301, 421, 430, 431, 438 (spring only 431 and 438)
2.50 average in teaching field
2.25 average in education courses
Electives to complete 128 hours

See page 162 for typical course of study in English education.

Education: Foreign Language (French, Latin, or Spanish) (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history and foreign languages

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education; for certification purposes, 3 of the hours may be in History

Category D
2 approved natural science courses to total 8 hours in natural sciences, plus Mathematics 115

Category E
1 approved interdisciplinary or non-western course (3 hours)
1 additional course outside teaching field from communications, humanities, mathematics, natural or behavioral sciences

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
French and Spanish:
22 hours in one language above the second college year Latin:
21 hours beyond Latin 101, 102, plus 9 hours from Classics 307, 308, 395, 396, 397
26 hours Education including 102, 204, 207, 301, 430, 431, 438 (Education 431, 438, offered in spring only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours

See page 162 for typical course of study in foreign language education.

Health and Physical Education requirements: see page 128.

Secondary Education: History* (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education and history

Category D
2 approved natural science courses to total 8 hours in natural sciences, plus Mathematics 115

Category E
1 approved interdisciplinary or non-western course (3 hours)
1 additional course outside teaching field from communications, humanities, mathematics, natural or behavioral sciences

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
33 hours history including 6 hours History 101, 102, 6 hours American history, History 301.
No more than one-half of the history courses at the 100-200 level.
29 hours education including 102, 204, 207, 301, 421, 430, 431, 438 (Education 431, 438 offered in fall only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours

See page 163 for typical course of study in history education.

*Students seeking teacher certification in Tennessee in the area of social studies must complete 6 semester hours in American history, 6 semester hours in European or world history, and 6 semester hours each in four of the following fields: economics, geography, political science, sociology, and psychology (must include Psychology 101 and 331 for psychology endorsement).
Secondary Education: Home Economics (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses other than education (6 hours): Economics 101, 3 hours sociology plus one course to total 9 hours behavioral or social sciences; for certification purposes, 3 of the hours may be in history

Category D
2 approved mathematics or natural or applied science courses plus Mathematics 115 (approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Major and related courses:
Biology 121, 122, 210
Chemistry 121, 122
36 hours home economics including 101,104,105,201,206,207,300,301,302,303,304
26 hours education including 102,204,207,301,430,431,438 (Education 431, 438 offered in fall only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours
See page 163 for typical course of study in home economics education.

Secondary Education: Mathematics (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences; for certification purposes, 3 of the hours may be in history

Category D
2 approved mathematics or natural or applied science courses other than physics (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Major and related courses:
Mathematics 140,150,160,195,250 and 260
18 hours 300- and 400 level mathematics courses including 321,350;
2.00 average in all 300 and 400-level mathematics courses
Recommended elective: Mathematics 451, 452
26 hours education including 102,204,207,301,430,431,438 (Education 431, 438 offered in spring only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours
See page 163 for typical course of study in mathematics education.

Secondary Education: Physics (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education; for certification purposes, 3 of the hours may be in history

Category D
2 approved mathematics or natural or applied science courses other than physics (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Major and related courses:
Mathematics 140,150,160 (250, 260 recommended)
8 hours chemistry
8 hours biology or geology (biology required for general science endorsement)
22 hours Physics including 103, 104, 231, 232, 498r or 499r
Recommended physics electives: 301, 303, 307, 318
Recommended elective: Computer Science 100
26 hours education including 102,204,207,301,430,431,438 (Education 431, 438 offered in fall only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours
See page 164 for typical course of study in physics education.

Secondary Education: Political Science*(B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education; for certification purposes, 3 of the hours may be in history

Category D
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Major and related courses:
Mathematics 140,150,160,195,250 and 260
18 hours 300- and 400 level mathematics courses including 321,350;
2.00 average in all 300 and 400-level mathematics courses
Recommended elective: Mathematics 451, 452
26 hours education including 102,204,207,301,430,431,438 (Education 431, 438 offered in spring only)
2.25 average in teaching fields and in education courses
Electives to complete 128 hours
See page 163 for typical course of study in mathematics education.

'Students seeking teacher certification in Tennessee in the area of social studies must complete 6 semester hours in American history, 6 semester hours in European or world history, and 6 semester hours each in four of the following fields: economics, geography, political science, sociology, and psychology (must include Psychology 101 and 331 for psychology endorsement).
General Education (see pages 27-29 for list of approved courses):

Secondary Education: Psychology*(B.S.)

Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses, (6 hours) plus one course to total 9 hours behavioral or social sciences in two fields other than education, sociology, and anthropology; for certification purposes, 3 of the hours may be in history

Category D
2 approved natural science courses to total 8 hours in natural sciences, plus Mathematics 115

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

1 additional course outside teaching field from communications, humanities, mathematics, natural or behavioral sciences

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:

Electives to complete 128 hours

See page 164 for typical course of study in sociology education.

Special Education: General (B.S.)

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours), plus English 228 to total 9 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus Art 222 to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses (6 hours) plus one course to total 9 hours behavioral sciences in two fields other than education, approved related courses below may apply: for certification purposes, 3 of the hours may be in history

Category D
2 approved natural science courses to total 8 hours natural sciences

*Students seeking teacher certification in Tennessee in the area of social studies must complete 6 semester hours in American history, 6 semester hours in European or world history, 6 semester hours in European or world history, 6 semester hours in English or world history, and 6 semester hours in each of the following fields: economics, geography, political science, sociology, and psychology (must include Psychology 101 and 331 for psychology endorsement).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>301</td>
<td>Education in the United States (3)</td>
<td></td>
<td>Organization and historical development of education in the United States, philosophical concepts and their influences on contemporary education; current issues.</td>
</tr>
<tr>
<td>310</td>
<td>Elementary School Curriculum (3)</td>
<td></td>
<td>The curriculum for grades one through six; the impact of technological and social change on curriculum planning and school organization. Prerequisite: admission to teacher education program.</td>
</tr>
<tr>
<td>320</td>
<td>Education Exceptionalities (3)</td>
<td></td>
<td>A study of the psycho-social-educational treatment systems used with educational exceptionalities. Prerequisites: Education 250 and admission to teacher education program.</td>
</tr>
<tr>
<td>330</td>
<td>Academic and Behavioral Evaluation (3)</td>
<td></td>
<td>A study of the basic principles and techniques of educational evaluation in special education used by the classroom/resource teacher. Prerequisites: Education 250 or 400 and admission to teacher education program.</td>
</tr>
<tr>
<td>100</td>
<td>Education, Serf and Society (3)</td>
<td></td>
<td>Selected material from cultural, psychological and social foundations of education related to contemporary issues and to the student's own educational experiences, goals, aspirations.</td>
</tr>
<tr>
<td>102</td>
<td>Orientation to Teaching (2)</td>
<td></td>
<td>Guided observation in classrooms and related school activities as first hand orientation to teaching. A minimum of 15 hours of observation required in addition to scheduled classes.</td>
</tr>
<tr>
<td>202</td>
<td>Human Growth and Development—Pre-School-Primary (3)</td>
<td></td>
<td>Child development focusing on study of child, prenatal through six years, with limited attention to elementary age child. Field component required. Credit not allowed in Education 202 and Psychology 221.</td>
</tr>
<tr>
<td>203</td>
<td>Human Growth and Development—Child (3)</td>
<td></td>
<td>Child development factors influencing growth; characteristics, influence of concepts on the educational process. Field component required. Credit not allowed in Education 203 and Psychology 221.</td>
</tr>
<tr>
<td>204</td>
<td>Human Growth and Development—Adolescent (3)</td>
<td></td>
<td>Adolescent development factors influencing growth; characteristics, influence of concepts on the educational process. Field component required. Credit not allowed in both Education 204 and Psychology 222.</td>
</tr>
<tr>
<td>207</td>
<td>Educational Psychology (3)</td>
<td></td>
<td>Theories of learning and instruction applied to the classroom; classroom as psychological environment; cognitive processes and motivation; use of tests and measures; approach to guidance. Field component required.</td>
</tr>
<tr>
<td></td>
<td>215r Workshop and Seminar (2-4)</td>
<td></td>
<td>Current topics in education. Special programs and in-service courses.</td>
</tr>
<tr>
<td>250</td>
<td>Introduction to Special Education (3)</td>
<td></td>
<td>A survey of special education with emphasis placed upon consideration of the history of special education; federal involvement and leaderships; and the global characteristics of the target population. Special education majors only. Credit not allowed in both 250 and 400.</td>
</tr>
<tr>
<td>251</td>
<td>Elementary Education and Exceptional Children (3)</td>
<td></td>
<td>Recognition and understanding educationally handicapping conditions; introduction to field of special education for the regular classroom teacher; focus on types of educational disabilities, general characteristics, and behavioral manifestations commonly encountered in regular classroom; designed for the regular classroom teacher.</td>
</tr>
<tr>
<td>400</td>
<td>Exceptional Children in Regular Classrooms (3)</td>
<td></td>
<td>A survey of exceptional children and the philosophy of mainstreaming, adaptation techniques, curriculum, materials, resources, referrals, evaluation and the teacher/resource-teacher relationship. Credit not allowed in both education 250 and 400.</td>
</tr>
<tr>
<td>403</td>
<td>Teaching Language Arts and Social Studies in Elementary Schools (3)</td>
<td></td>
<td>Selection and design of materials and activities for diagnosing, directing, evaluating children’s learning of oral and written language skills and social studies concepts. Selected field experiences. Pre- or co-requisites: 420 and admission to teacher education program. May not be used for graduate credit.</td>
</tr>
<tr>
<td>404</td>
<td>Methods of Teaching Science and Mathematics in Elementary Schools (3)</td>
<td></td>
<td>Field-based: techniques, programs, innovations and evaluation in teaching science and mathematics. Selected lessons taught to colleagues and school children. Prerequisite: admission to teacher education program. May not be used for graduate credit.</td>
</tr>
<tr>
<td>405</td>
<td>Observation and Student Teaching in Elementary Schools (9)</td>
<td></td>
<td>Supervised teaching in two school environments. Placements will ensure experience at two different grade levels, as well as in inner city and suburban or rural schools. Prerequisites: 102,203, 207, 301, 403, and 420 and admission to teacher education program; notification of intent to engage in student teaching 10 months prior to registration in 405. May not be used for graduate credit.</td>
</tr>
<tr>
<td>405X</td>
<td>Observation and Student Teaching in Elementary Schools (6)</td>
<td></td>
<td>Selected senior students to teach in classrooms where at least two identified exceptional children are enrolled. Schedules must permit full time involvement with classroom five days a week for 8 weeks; weekly seminars in addition to the one required of each regular elementary education major. (This course cannot be used to meet Tennessee certification requirements for special education.) Prerequisite: 251 and 466.</td>
</tr>
<tr>
<td>406</td>
<td>Observation and Student Teaching in Elementary School Music (3)</td>
<td></td>
<td>Prerequisites: Music 321; admission to teacher education program. May not be used for graduate credit.</td>
</tr>
<tr>
<td>410</td>
<td>Materials and Methods in Early Childhood Education (3)</td>
<td></td>
<td>The objectives, materials, methods, pupil activities and evaluation of pre-school education. Field component required. Prerequisite: admission to teacher education program. May not be used for graduate credit.</td>
</tr>
</tbody>
</table>
| 419         | Observation and Student Teaching in Kindergarten and Elementary Grades (9)                                                               |              | Field placement in both the kindergarten and elementary grades in the same semester. Schedules must permit full time involvement three days per week and half day participation two days with at least...
one-third of the time devoted to responsible participation and teaching. Prerequisites: 102, 202 or 203, 207, 301, 403, 420; pre or co-requisites 400, 410, 404; admission to teacher education program; notification of intent to student teach 10 months prior to registration in 419. May not be used for graduate credit.

420 The Teaching of Reading in the Elementary School (3)
Survey of methods, strategies, diagnostic-prescriptive procedures and materials for teaching reading. Field component required. Prerequisite: admission to teacher education program. May not be used for graduate credit.

421 The Teaching of Reading in the Secondary School (3)
Integrating reading skills and teaching strategies with the teaching of content area subjects. Required of all English education majors and of education majors in all areas of social science. Prerequisite: admission to teacher education program.

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. Prerequisite: admission to teacher education program.

423 Diagnostic and Prescriptive Teaching of Reading (3)
Field-based: classroom diagnostic-prescriptive teaching; in-depth study of selected assessment instruments, instructional strategies, materials and management procedures. Prerequisites: 420 or equivalent, or permission of instructor; admission to teacher education program. May not be used for graduate credit.

430 Secondary School Curriculum—Guidance (3)
Function and aims of curriculum in junior and senior high schools; emphasis on the learner, particularly the exceptional student, as a major factor in curriculum planning; the role of guidance services. Prerequisite: admission to teacher education program. May not be used for graduate credit.

431 Teaching Strategies and Evaluation in the Secondary School (6)

<table>
<thead>
<tr>
<th>Fall Semester:</th>
<th>Spring Semester:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>Business</td>
</tr>
<tr>
<td>Home Economics</td>
<td>English</td>
</tr>
<tr>
<td>Science</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Social Science</td>
<td>Health &amp; Physical Education</td>
</tr>
<tr>
<td></td>
<td>Mathematics</td>
</tr>
</tbody>
</table>

Teaching strategies appropriate for individual differences: Curricular and media developments appropriate for the respective discipline; evaluation procedure and attention to the exceptional student in secondary grades. Prerequisite: Official admission to the teacher education program (TEP). Not approved for graduate credit.

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. Prerequisite: admission to teacher education program. May not be used for graduate credit. Spring semester only.

438 Observation and Student Teaching in Secondary School (6)

<table>
<thead>
<tr>
<th>Fall Semester:</th>
<th>Spring Semester:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Art</td>
<td>Business</td>
</tr>
<tr>
<td>Home Economics</td>
<td>English</td>
</tr>
<tr>
<td>Science</td>
<td>Foreign Language</td>
</tr>
<tr>
<td>Social Science</td>
<td>Health &amp; Physical Education</td>
</tr>
</tbody>
</table>

The student is assigned to a teacher in the secondary school under the supervision of a faculty supervisor assigned by UTC. The student schedule must permit contact with the classroom-laboratory situation full-time for a regular school week for one half of a semester. Prerequisite: 102, 204, 207, 301; Pre or co-requisite: 430, 431; and official admission to the teacher education program (TEP). Not approved for graduate credit.

439 Observation and Student Teaching in Secondary School Music (3) See description under 438. Spring semester only.

440 Classroom Management in Special Education (3)
An examination of the adaptation of classroom management techniques in both classroom as well as individual tutorial situations. Prerequisites: 250 and admission to teacher education program.

453 Speech Disabilities and Language Development (3)
Recognition and understanding of language development and speech disabilities. Basic diagnosis remediation and speech improvement activities incorporated. Prerequisite: admission to teacher education program.

460, 461 Clinical Teaching (3,3)
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 educational strategy. Prerequisites: 320, 330; 461 must be preceded by 460. 461 Corequisite: 465; admission to teacher education program.

462 Methods of Teaching Exceptional Children in the Regular Classroom (3)
Detailed analysis of curriculum adaptation for teaching the exceptional child in the regular classroom; emphasis on establishing behavioral objectives, sequencing content and skills; developing procedures to enhance individualization of instruction and planning pupil experiences. (Course not approved to meet Tennessee certification requirements.) Prerequisite: 251 and 466.

465 Special Education Practicum (3)
This course encompasses a practicum experience for special education students with opportunity for supervised participation in public school, private school or institutional special educational programs. The student will register for this course concurrently with 461. Prerequisite: 460.

466 Elementary Education Practicum with Exceptional Children (3)
Practicum experience for prospective elementary teacher selected for this special education project; case conference, small group seminars, one-to-one teaching, part of practicum experiences; not approved for meeting Tennessee certification requirements for special education. Corequisite: 251.

469 Observation and Student Teaching in Special Education (6)
Applies competencies that have been developed through preceding experiences to the actual processes of teaching and guiding children and youth. Student schedule must permit contact with the same classroom situation full-time for a minimum of five days per week for at least one half of the semester. Prerequisite: 465; spring semester only.

480 Teaching Media (3)
The selection, use and evaluation of technological innovations in audiovisual media; emphasis on laboratory experiences in communication media.

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.

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.

483 Teaching Internship (9)
Undergraduate credit only. For the temporarily certified employed teacher. Provides close supervision in planning, implementation and evaluation. Tailored to fit specific school setting. Prerequisite: one year full-time teaching in certifiable area: approval of director, School of Education.
Graduate Degree Programs
School of Education

The School of Education offers the Master of Education degree with majors in the following areas:

Elementary Education with concentrations in reading or curriculum and instruction. The reading concentration leads to certification as a reading resource teacher.

Secondary Education with concentrations in art, biology, business, English, health, history, mathematics, natural science, social science, and physical education. A reading endorsement leading to certification as a special teacher of reading may be added to any secondary concentration offered.

Guidance and Counseling with concentration in elementary or secondary school program leads to certification at the appropriate level.

Community Counseling

School Administration with concentration in elementary or secondary school program leads to certification as school principal at the appropriate level.

Special Education with concentrations in diagnostic & prescriptive education, gifted education or severely mentally retarded. All concentrations lead to certification in general special education.

The Department of Psychology offers a Master of Science degree with a concentration in School Psychology leading to certification as a school psychologist.

The School of Education offers courses leading to certification in the areas of supervision grades 1-9 or supervision grades 7-12.

See pages 35-41 for general graduate division policies. Our graduate degree students in Education are required to complete one semester in residency. Summer work may fulfill this requirement.

The Master of Education degree requires a formal research experience (Education 598) as a component of each major area. A student may choose to meet this requirement by excercising the Thesis Option (Education 599r-6 hrs.). The research project must be approved by the student's advisor and a formal prospectus submitted to the graduate committee for approval. The specific requirements on format, registration and scheduling are available from the respective program coordinator or the office of the coordinator of graduate education programs.

Master of Education
In Elementary Education

The program in elementary education is designed for those certified school teachers who wish to deepen their insight, gain additional knowledge and improve their professional competencies.

Admission—In addition to meeting the regular graduate admissions requirements, a student without elementary teaching certification who enters this program and wishes to be certified at this level may have additional course work to complete. Prerequisite or additional courses needed by the student will be prescribed by the program leader with approval of the department head.

The candidate's overall record is evaluated in terms of his or her perceived academic and professional potential ability to participate in this graduate degree program.

Course Requirements—The minimum total credit required is 33 semester hours. The required work includes professional core of 9 hours, 3 hours of Urban education, professional concentration of at least 12 hours, at least six hours from teaching content (excluding Education and Psychology), and 3 hours of independent research. Education 501 is recommended for the first semester of enrollment.

Professional Core
Education 501, Methods of Educational Research (3)
Education 502, Theories of Learning (3)
Education 520, Curriculum: Theories and Design, Elementary (3)

Urban Studies:
Education 506, Contemporary Issues in Urban and Rural Education (3)
Urban courses from other departments may be selected in consultation with a faculty advisor

*Professional Education Concentration
Courses to be selected in consultation with the advisor to fit individual program and degree objectives.

Content
Two courses related to degree objectives to be selected from areas other than education and psychology in consultation with the advisor

Research Education 598, Independent Research (3)
or
Education 599r, Thesis (3,3)
Total semester hours 33-36

Typical Concentrations: Reading, Curriculum and Instruction. Consult with advisor for specific courses.

Master of Education in Secondary Education

The program in secondary education is designed to add depth in the teaching area and to broaden professional understandings of the secondary school teacher.

Admission—In addition to meeting the regular graduate admissions requirements, a student without
secondary teaching certification who enters this pro-
gram and wishes to be certified at this level may have
additional course work to complete. Prerequisite or
additional courses needed by the student will be pre-
scribed by the program leader with approval of the
department head. Admission to this degree program is
restricted to those qualified in the following teaching
areas: art education, biology, business education,
English, health education, history, mathematics, phys-
ical education and the social or natural sciences. The
candidate's overall record is evaluated in terms of the
perceived academic and professional potential ability
to participate in this degree program.

Course Requirements—the minimum total credit
requirement is 33 semester hours. The program in-
cludes 15 hours in professional education, 12 hours in
discipline content area, 3 hours in urban education
and 3 hours of independent research. Education 501 is
recommended for the first semester enrollment. Candi-
dates for the Georgia T-5 certificate should consult
with their advisor for specific requirements.

Professional Core: 9
Education 501, Methods of Educational Research (3)
Education 502, Theories of Learning (3)
Education 530, Curriculum: Theories and Design,
Secondary (3)

Urban Studies: 3
Education 506, Contemporary Issues in Urban and
Rural Education (3)
Urban courses from other departments may be
selected in consultation with faculty advisor.

Teaching Area Concentration: 12
Appropriate courses from the major content area
selected in consultation with advisor.

Professional Education Concentration: 6
Two education courses related to degree objectives
to be selected in consultation with advisor.

Research:
Education 598, Independent Research (3) 3
or
Education 599r, Thesis (3 or 6) 3 or 6

Total semester hours 33-36

Master of Education
in School Administration
The program in school administration is designed to
prepare experienced teachers for positions as elemen-
tary or secondary school principals. The Master of
Education program in school administration is a fifth-
year program.
Admission—in addition to meeting the regular
graduate admissions requirements, a student must have
professional teaching certification. Additional
courses may be necessary for endorsement at the level
desired. Prerequisite or additional courses will be pre-
scribed by the program leader in school administra-
tion. Three years of successful teaching experience are
required before the endorsement will be recom-
manded for Tennessee certification in school ad-
ministration. Candidates for the Georgia A-5 certificate
should consult with their advisor for specific require-
ments. Certification as a supervisor of instruction is
possible by taking additional courses above the degree
requirements.

Course Requirements—A minimum of 33 semester
hours is required for the degree. Education 501 is re-
commended during the first semester of enrollment.

Professional Core: 9
Education 501, Methods of Educational Research
(3)
Education 502, Theories of Learning (3)
Education 520, Curriculum: Theories and Design,
Elementary (3)
or
Education 530, Curriculum: Theories and Design,
Secondary (3)

Urban Studies: 3
Education 506, Contemporary Issues in Urban and
Rural Education (3)
Urban courses from other departments may be
selected in consultation with a faculty advisor.

Professional Administration: 12
Education 560, Secondary School Organization and
Supervision (3)
or
Education 561, Elementary School Organization and
Supervision (3)
Education 563, School Law and Finance (3)
Education 564, Organization and Administration of
Public Education (3)
Education 578, Practicum in School Administration
(3)

One course from the following:
Education 505, Descriptive and Inferential Statistics
(3)
Education 562, Problem Solving in School Adminis-
tration (3)
Education 565, Current Practices in Educational
Supervision (3)
Education 566, Supervision of the Instructional Pro-
cess (3)

Research:
Education 598, Independent Research (3) 3
or
Education 599r, Thesis (3) 3
Elective: 3

Total semester hours 33

Master of Education in
Secondary School Counseling
The Master of Education degree program in secon-
dary school counseling is designed to prepare begin-
ing counselors who will work in guidance programs
in grades seven to twelve. The program emphasizes
understandings basic to the school community in
which the counselor operates as well as technical
competence in fundamental areas.
Admission—in addition to meeting the regular
graduate admissions requirements a student must also
be professionally certified for secondary school teach-
ing or demonstrate competencies in educational
psychology, adolescent growth and development,
curriculum, and history and philosophy of education.

Course Requirements—The outlined program fulfills
academic requirements for certification as a secondary...
school guidance counselor in Tennessee. The minimum total credit requirement is 39 semester hours. Alternates for any of the specified courses must be approved by the department head and director of the School of Education. Education 501 is recommended in the first semester of enrollment.

**Professional Core:**
- Education 501, Methods of Educational Research (3)
- Education 502, Theories of Learning (3)

**Professional Counseling**
- Education 540, Principles and Administration of Secondary School Guidance (3)
- Education 544, Theories of Counseling (3)
- Education 546, Techniques of Secondary Counseling (3)
- Education 547, Group Techniques in Counseling (3)
- Education 548, Counseling Appraisal Instruments (3)
- Education 549, Career Education (3)
- Education 557, Guidance Practicum (3)
- Education 558r, Counseling Practicum (3)
- Psychology 448, Theories of Personality (3)

**Research:**
- Education 598, Independent Research (3)
- Education 599r, Thesis (3, 3) 3-6

An elective selected in consultation with a faculty advisor

**Total semester hours** 39-42

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**Master of Education in Elementary School Counseling**

The Master of Education degree program in elementary school counseling is designed to prepare beginning counselors who will work in guidance programs in grades kindergarten through nine. The program emphasizes understandings basic to the school community in which the counselor operates as well as technical competence in fundamental areas.

**Admission**-In addition to meeting the regular graduate admission requirements a student must be professionally certified for elementary school teaching. Three years of successful teaching experience are required before the endorsement will be recommended for Tennessee certification in elementary school counseling.

**Course Requirements**-The minimum total credit requirement is 39 semester hours. Alternates for any of the specified courses must be approved by the department head and director of the School of Education. Education 501 is recommended in the first semester of enrollment.

**Professional Core:**
- Education 501, Methods of Educational Research (3)
- Education 502, Theories of Learning (3)

**Professional Counseling Concentration:**
- Education 541, Principles and Administration of Elementary Guidance Programs (3)
- Education 544, Theories of Counseling (3)
- Education 545, Techniques of Counseling—Elementary (3)
- Education 547, Group Techniques in Counseling (3)
- Education 548, Counseling Appraisal Instruments (3)
- Education 549, Career Education (3)
- Psychology 448, Theories of Personality (3)

**Education 558r, Counseling Practicum (3)**

**Research:**
- Education 598, Independent Research (3)
- Education 599r, Thesis (3, 3) 3-6

**Total semester hours** 39-42

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**Master of Education in Community Counseling**

The Master of Education degree program in community counseling is primarily designed for those persons who are fulfilling the role of counselor in a setting other than a public or private school and who desire to gain a higher level of competence in the field of counseling.

**Admission**-In addition to the regular graduate admissions requirements a student must have 20 hours in psychology, sociology or a major in human services. An applicant will also be required to submit three letters of recommendation and have a personal interview with staff members in counselor education. A student applying for the fall semester must have all materials in by November 1; for the spring semester, all materials must be in by March 1.

**Course Requirements**-A student will be required to complete the basic core of twenty-one semester hours in counseling, six hours in research and an additional 9 hours in psychology planned in accordance with the educational and professional objectives and the interests of each student. Education 501 is recommended in the first semester of enrollment.

**Professional Core:**
- Education 501, Methods of Educational Research (3)

**Professional Counseling:**
- Education 542, Introduction to Counseling in the Community (3)
- Education 544, Theories of Counseling (3)
- Education 546, Techniques of Counseling (3)
- Education 547, Group Techniques of Counseling (3)
- Education 548, Counseling Appraisal Instruments (3)
- Psychology 448, Theories of Personality (3)
- Education 558r, Counseling Practicum (3, 3)
- Education 558 (3) and Education 559 Internship in Counseling (6)

**Research:**
- Education 598, Independent Research (3)
- Education 599r, Thesis (3, 3) 3-6

**Total semester hours** 36-42

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**Master of Education in Special Education**

The program in Special Education is primarily designed to prepare individuals for positions as special education resource teachers. The program consists of a basic core and the option of a concentration in diagnostic prescriptive education, gifted education, or severely mentally retarded education.

**Admission**-A student without teaching certification who enters the program and wishes to be certified in
special education may have additional course work to complete based upon the certification requirements of the state(s) in which endorsement is sought. Pre-requisite or additional courses needed by a student will be prescribed by the program leader with the approval of the department head.

Course Requirements-A minimum of 42 semester hours is required for the degree. Education 501 is recommended during the first semester of enrollment.

Concentrations:

**Diagnostic Prescriptive Education:**
- Education 501, Methods of Research (3)
- Education 575, Survey of Exceptional Individuals (3)
- Education 576, Seminar in Special Education (3)
- Education 577, Administration and Supervision Special Education Programs (3)
- Education 579, Counseling Exceptional Individuals and Families (3)
- Education 580, Classroom Management Techniques (3)
- Education 581, Nature and Characteristics of Exceptional Disabilities (3)
- Education 582, Programming for Exceptional Individuals (3)
- Education 583, Individual Educational Assessment Techniques (3)
- Education 584, Prescriptive Teaching (3)
- Education 585, Diagnosis of Educational Problems (3)
- Education 598, Independent Research (3)

**Research:**
- Education 598, Independent Research (3)
- Education 599r, Thesis (3, 3)

**Total semester hours:** 42-45

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**Gifted Education**

- Education 501, Methods of Research (3)
- Education 575, Survey of Exceptional Individuals (3)
- Education 577, Seminar in Special Education (3)
- Education 579, Counseling Exceptional Individuals and Families (3)
- Education 580, Classroom Management Techniques (3)
- Education 586, Nature and Characteristics of the Gifted (3)
- Education 587, Strategies and Programs for the Gifted (3)
- Education 588, Creative Problem Solving (3)
- Education 589, Seminar in Education of the Gifted (3)
- Education 590, Dynamics of Groups at Work Emerging Leadership (3)
- Education 596, Special Education Practicum - Gifted (3)
- Education 598, Independent Study (3)
- Education 599r, Thesis (3, 3)

**Total semester hours:** 42-45

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**Severely Mentally Retarded Education**

- Education 501, Methods of Research (3)
- Education 575, Survey of Exceptional Individuals (3)
- Education 577, Seminar in Special Education (3)
- Education 579, Counseling Exceptional Individuals and Families (3)
- Education 580, Classroom Management Techniques (3)
- Education 591, Nature and Characteristics of Mentally Retarded (3)
- Education 592, Identification and Assessment of Developmental Skills (3)
- Education 593, Amelioration Procedures for Specific Developmental Deficiencies (3)
- Education 594, Modification of Behaviors and the Severely Mentally Retarded (3)
- Education 595, Life Management for the Severely Mentally Retarded and Family (3)
- Education 596, Special Education Practicum - Severely Mentally Retarded (3)
- Education 598, Independent Research (3)
- Education 599r, Thesis (3, 3)

**Total semester hours:** 42-45

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**Courses For Graduate Students Only**

**501 Methods of Education Research (3)**  
Emphasis on the development of research skills and related competencies involved in investigating and reporting educational problems. Study of basic statistical procedures. Must be satisfactorily completed prior to admission to candidacy for the M.Ed.

**502 Theories of Learning (3)**  
Study of primary theories of learning from which teaching methodology has been developed. Emphasis on American learning theory and other psychological theories of learning.

**503r Current Topics in Education (2-4)**  
Special topics designed for specified groups as in-service education. Study to include research in literature of current topics under discussion.

**504 Educational Psychology II (3)**  
Research findings in the major areas of educational psychology, including the development tasks, influences of cultural factors on the individual's intelligence, aptitudes and learning.

**505 Descriptive and Inferential Statistics (3)**  
Types of data, experimental design, parametric and non-parametric methods. Some prior study in measurement and/or statistics recommended.

**506 Contemporary Issues in Urban and Rural Education (3)**  
A consideration of urban and Appalachian students, innovative approaches and skills for teaching and relating, new school structures including the community school concept.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>507</td>
<td>Current Issues in Higher Education (3)</td>
<td>An introduction to current issues and topics in higher education with particular attention given to the community college setting. Included will be a consideration of educational finance, accountability, supervision and evaluation of instruction, appropriate student demographic data, and recent trends in higher education.</td>
</tr>
<tr>
<td>508</td>
<td>Social and Historical Foundations (3)</td>
<td>The social, historical and philosophical foundations of education as applied to the American educational system from elementary school through higher education. Special sections dealing with elementary, secondary and higher education may be offered when appropriate.</td>
</tr>
<tr>
<td>509</td>
<td>Seminar for Cooperating Teachers (3)</td>
<td>Objective analysis and evaluation of teaching. Emphasis on student teacher/cooperating teacher/college supervisor interrelationships.</td>
</tr>
<tr>
<td>510</td>
<td>Improving Instructions in Reading (3)</td>
<td>Theory and practice; objectives, materials, instructional strategies and review of developmental reading programs; evaluation of various functions of the reading process.</td>
</tr>
<tr>
<td>511</td>
<td>Diagnostic and Remedial Procedures in Reading (3)</td>
<td>Field-based, assessment interpretation and prescription; causes, prevention, correction; formal and informal techniques stressed. Prerequisite: 420, or 421, or 510, or equivalent.</td>
</tr>
<tr>
<td>519</td>
<td>Reading Practicum (3)</td>
<td>Supervised remediation experience; diagnosing, planning, effecting a treatment program. Prerequisite: Approval of instructor and 510 and 511 or equivalent. May be repeated. Maximum credit 6 hours.</td>
</tr>
<tr>
<td>520</td>
<td>Curriculum: Theories and Design, Elementary (3)</td>
<td>Objectives, theory, issues in relation to principles of learning, needs of children; critical analysis of curriculum trends; role of the teacher in curriculum development.</td>
</tr>
<tr>
<td>521</td>
<td>Evolving Patterns in Elementary School Teaching (3)</td>
<td>English Mathematics Social Studies Content and teaching strategies unique to a particular discipline. Emphasis on recent developments. Exploration into curriculum research and models for curriculum implementation. Prerequisite: 501</td>
</tr>
<tr>
<td>530</td>
<td>Curriculum: Theories and Design, Secondary (3)</td>
<td>Objectives, theory, issues in relation to principles of learning, needs of youth; critical analysis of curriculum trends; role of the teacher in curriculum.</td>
</tr>
<tr>
<td>531</td>
<td>Evolving Patterns in Secondary Teaching (3)</td>
<td>English Mathematics Science Social Studies Content and teaching strategies unique to a particular discipline. Emphasis on recent developments. Exploration into curriculum research and models for curriculum implementation. Prerequisite: 501</td>
</tr>
<tr>
<td>532</td>
<td>Strategies in Teaching Basic Business Subjects (3)</td>
<td>Study of aims, materials, methods and interrelationships of the basic business subjects. Related literature and research used as basis for evaluating current techniques and practices.</td>
</tr>
<tr>
<td>533</td>
<td>Strategies in Teaching Skill Subjects (3)</td>
<td>Study of the methods and materials used in teaching typewriting and shorthand. Attention to developing performance goals and objectives. Related literature and research used as a basis for evaluation.</td>
</tr>
<tr>
<td>534</td>
<td>Strategies in Teaching Accounting (3)</td>
<td>Study of the methods and materials used in teaching accounting principles and their application. Related literature and research used as a basis for evaluation.</td>
</tr>
<tr>
<td>535</td>
<td>Curriculum Development in Higher Education (3)</td>
<td>An examination of various issues and problems relating to curriculum development in higher education with particular emphasis on the community college curriculum. Philosophies of higher education, models of knowledge and instruction, development of instructional goals and objectives, development of course outlines and syllabi, and curricular innovations among the topics considered.</td>
</tr>
<tr>
<td>540</td>
<td>Principles and Administration of Secondary Guidance Programs (3)</td>
<td>Philosophy and application of the guidance process to vocational, educational and personal-social growth. The organization and administration of guidance services in the schools. Pre-or co-requisite 501.</td>
</tr>
<tr>
<td>541</td>
<td>Principles and Administration of Elementary Guidance Programs (3)</td>
<td>Principles, philosophy, organization and administration of guidance in the elementary school. Emphasis upon counseling, consulting and coordination. Pre-or co-requisite: 501.</td>
</tr>
<tr>
<td>542</td>
<td>Introduction to Counseling in the Community (3)</td>
<td>The counselor's role, ethics; survey of agencies where counselors are employed. Classification of emotional disorders using the DSM-II and psychopharmacology is also covered. Pre-or co-requisite: 501.</td>
</tr>
<tr>
<td>544</td>
<td>Theories of Counseling (3)</td>
<td>Review of the major theoretical approaches to individual counseling: client-centered, behavioral, psychoanalytic, rational, existential and social-psychological. Prerequisite: 501.</td>
</tr>
<tr>
<td>545</td>
<td>Techniques of Counseling—Elementary (3)</td>
<td>Designed to give students didactic and simulated experiences with the major techniques of counseling used with elementary school children. Pre-or co-requisite: 544.</td>
</tr>
<tr>
<td>546</td>
<td>Techniques of Counseling—Secondary (3)</td>
<td>Study of counseling techniques, particularly as practiced with adolescents and adults. Understanding the essential qualities and basic skills of counseling relationships. Pre-or co-requisite: 544.</td>
</tr>
<tr>
<td>547</td>
<td>Group Techniques in Counseling (3)</td>
<td>Concepts and procedures of group counseling. Patterns of leadership, role development and interaction. Relationship of group counseling to the total school guidance program. Credit not allowed in both Education 547 and 568. Prerequisites: 540, 541, or 542.</td>
</tr>
<tr>
<td>548</td>
<td>Counseling Appraisal Instruments (3)</td>
<td>Study of test instruments commonly used by counselors to aid the individual's self-understanding and making educational and vocational choices. Emphasis is upon group tests and inventories. Prerequisite: 540, 541 or 542</td>
</tr>
<tr>
<td>549</td>
<td>Career Education (3)</td>
<td>Exploration of strategies for educational and vocational growth; theories of vocational development; career education in schools; significance of work in the life of individuals. Pre-or co-requisite: 540, 541 or 542.</td>
</tr>
<tr>
<td>550</td>
<td>Perspectives of Human Sexuality for Counselors (3)</td>
<td>Focus on counseling perspectives of human sexual development, adjustment, remediation; designed to increase the counselor's understanding and acceptance of his/her own sexuality and that of clients and students. Prerequisite: One of the following: Education, 545, 546, Psychology 517, 522 or 523, and approval of instructor.</td>
</tr>
<tr>
<td>557</td>
<td>Practicum in Guidance (3)</td>
<td>Designed to give the student experience in working in a guidance program at the secondary level. Students receive on-site experience in testing, advising, consulting, coordination and the general administration of a guidance program. Prerequisite: 18 hours in counseling curriculum and approval of advisor.</td>
</tr>
</tbody>
</table>
558r Counseling Practicum (3)
Supervised counseling at appropriate grade level. Focus is upon assisting the student to implement his theory and techniques in educational, vocational and personal counseling. Prerequisite: Approval of instructor. Maximum credit 6 hours.

559 Internship in Counseling (6)
Designed to give student intensive experience under supervision in an approved setting. Students will be required to spend a minimum of 15 hours per week for one full semester. Prerequisite 558r and approval of advisor.

560 Secondary School Organization and Supervision (3)
Basic problems of secondary school administration; organization of the school; assignment of the staff; revision and implementation of the curriculum; classification of pupils; special programs. Prerequisite: 564.

561 Elementary School Organization and Supervision (3)
Basic problems of elementary school administration; organization of the school; assignment of the staff; revision and implementation of the curriculum; classification of pupils; special programs. Prerequisite: 564.

562 Problem Solving in School Administration (3)
Intensive study of the techniques used in problem-solving and decision making in school administrations. Emphasis on the analysis of administrative behavior using case studies.

563 Finance and Law in School Administration (3)
Study and interpretation of the financing of education in the United States. The legal status of the pupil, teacher, principal, superintendent and school boards.

564 Organization and Administration of Public Education (3)
Historical and recent developmental principles of organization and administration of public education at federal, state and local levels. Current issues, problems and trends at the building level as related to organizational theory. Group processes in administration.

565 Current Practices in Educational Supervision (3)
Basic concepts of educational supervision; possible organizations for supervision; interrelations of supervisory officials; recent research in the field.

566 Administration and Supervision of Instructional Process (3)
The study of various models to comprehending instructional strategies, teacher-student interaction and classroom organization management and their influence on the learning process.

571 The School Plant: Planning, Operation and Maintenance (3)
Basic concepts in planning modern school facilities including the development of educational specifications, site and architect selection, architectural design and planning for low cost maintenance. Prerequisite: nine hours in school administration core; admission to M.Ed. candidacy.

572 Practicum in Educational Supervision (3)
A supervised field experience in school or district office settings designed to provide graduate students in educational supervision with practical applications of supervisory theory. Prerequisite: 565 or 566.

575 Survey of Exceptional Individuals (3)
A study of the field of special education with emphasis given to the psychology of intellectual, social, emotional, physical and learning differences in exceptional individuals.

576 Seminar in Special Education (3)
Current problems and issues in special education at the federal, state and local levels will be considered. Prerequisite: 575 or approval of instructor.

577 Administration and Supervision of Special Education Programs (3)
Basic requirements in the administration of special education pro-

578 Practicum in Educational Administration (3)
A supervised field experience designed to provide a graduate student in educational administration leadership and management experiences. Prerequisites: Admission to M.Ed, candidacy and completion of 9 semester hours in the administration core.

579 Counseling Exceptional Individuals and Their Families (3)
Problems of exceptional individuals and techniques used in counseling exceptional children and their parents. Prerequisite: 575 or approval of instructor.

580 Classroom Management Techniques (3)
Examination of techniques for structuring the classroom to the learning process. Approaches discussed include humanistic education, operant conditioning principles and precision teaching. Prerequisite: 575 or approval of instructor.

581 Nature and Characteristics of Educational Disabilities (3)
Examination of various types of problems encountered by many children and adults engaged in the learning process. Prerequisite: 575 or approval of instructor.

582 Programming for Exceptional Individuals
In-depth analysis of current categorical and non-categorical educational programming alternatives necessitated by an individual's exceptionality. Prerequisite: 581 or approval of instructor.

583 Individual Educational Assessment Techniques (3)
Examination of instruments and procedures for individual assessment of educational skills. Students will learn to administer and interpret the results of tests of general ability and specific academic skills. Prerequisite: 581 or approval of instructor.

584 Prescriptive Teaching (3)
Study of procedures for using formal and informal diagnostic information and informal observations to arrive at an educational strategy to facilitate learning in persons who are experiencing educational problems. Prerequisite: 583 or approval of instructor.

585 Diagnosis of Educational Problems (3)
Examination of the educational diagnostic process; focus placed on instruments and procedures which can be used by the school counselor to assess specific problems in children. Prerequisite: 583 or approval of instructor.

586 Nature and Characteristics of the Gifted (3)
Explores characteristics of gifted children and youth including intellectual, artistic, musical and creative giftedness. The changing concept of giftedness, its assessment and theories of mental abilities will be surveyed. Prerequisite: 575 or approval of instructor.

587 Strategies and Programs for the Gifted (3)
Various strategies of thinking and teaching and their relationship to programs of instruction for the gifted. Prerequisite: 586 or approval of instructor.

588 Creative Problem Solving (3)
Exploration of the concept of creativity, its factors, measurement and application to education. Prerequisite: 575 or approval of instructor.

589 Seminar in the Education of the Gifted (3)
Review of research relevant to gifted education and an analysis of current programming for the gifted. Prerequisite: 586 or approval of instructor.

590 Dynamics of Groups at Work: Emerging Leadership (3)
Theories of small group interaction and education procedures for facilitating interaction with emphasis on working with gifted children. Prerequisite: 575 or approval of instructor.
591 Nature and Characteristics of the Mentally Retarded (3)
Comprehensive study of the field of mental retardation considering the terminology, classification, etiological factors, sociological factors, psychological characteristics, identification techniques and programs of education. Prerequisite: 575 or approval of instructor.

592 Identification and Assessment of Developmental Skills (3)
Procedures for the identification and assessment of developmental skills in the areas of sensori-motor communication, social, cognitive, and affective skills. Prerequisite: 591 or approval of instructor.

593 Amelioration Procedures for Specific Developmental Deficiencies (3)
Experiences in planning instructional procedures that enhance individualization of instruction and pupil experience as related to sensorimotor, communication, social, cognitive and affective developmental skills. Prerequisite: 592 or approval of instructor.

594 Modification of Behaviors and the Severely Mentally Retarded (3)
Analysis of the theory and practice of operant conditioning as it relates to the modification of behavior of the severely mentally retarded. Prerequisites: 580, 591 or approval of instructor.

595 Life Management for the Severely Mentally Retarded and Their Families (3)
Exposure to the full array of services offered to the severely mentally retarded individual and his family in the institution, community and home environments. Prerequisites: 579 or approval of instructor.

596 Special Education Practicum (3)
Practicum experience in public or private settings unique to each concentration within the graduate program. Prerequisites: DPE: 584, 586; CE: 587, 588, 590; and SMR: 593, 594, 595 or approval of instructor.

597r Individual Studies (2-4)
To enable a student to study selected topic in depth. Requires a written outline of work to be done, a statement describing the competencies to be developed and the method of assessment to be used in evaluation. Prerequisites: Approval of advisor and the director of the School of Education.

598 Research (3)
To enable a student to conduct independent research. Prerequisites: Education 501, admission to graduate degree candidacy, approval of program advisor and coordinator of graduate programs in education. Requires the submission of a formal prospectus two weeks prior to registration.

599r Thesis (3 or 6)
The development of a product of thesis magnitude and quality. Specific style and form may vary with the degree program. Department and library copies of thesis required. Oral defense required. Six hours of credit permitted. Registration to be completed in one term or in two consecutive terms. Prerequisites: Education 501, admission to graduate degree candidacy, approval of program advisor and Coordinator of graduate programs in education. Requires submission of a formal prospectus two weeks prior to registration.

Courses For Post-Masters Students Only

600 Advanced Research Design and Analysis (3)
Major types of experiential and quasi-experiential designs such as Solomon Four Group, Factorial and Latin square. Emphasis on designs and methods appropriate to educational research. Use of data processing and statistical computer packages. Prerequisites: 501 and 505.
Health, Physical Education & Recreation (HPE/R)

Organizational Description

Programs and activities within the scope of the Health, Physical Education, and Recreation Department are administered through the School of Education.

A major thrust of HPE/R is the provision of two distinct academic career program tracks:
- Secondary Education - Health & Physical Education (7-12)
- Health & Physical Education-Recreation Specialist

In addition, HPE/R offers a diversified service program of physical recreation activities primarily for the undergraduate student. Activity courses from this program may be used to meet the University requirement of two (2) semester hours. Refer to page 132 within this section of the catalog for additional information concerning this requirement.

Furthermore, HPE/R provides a well-rounded seasonal intramural activities program and general recreation for the University community.

Graduate concentrations in either health education or physical education are possible while earning the Master of Education in secondary education. Refer to page 121 for additional information concerning the graduate program.

Inquiries and concerns relative to any of these programs and activities should be directed to the HPE/R department head.

The organizational structure within HPE/R is based upon program responsibility.

School of Education

Health-Physical Education-Recreation

Recreation Specialist

HPE Certification Service Program
- Intramurals
- General Recreation

HPE/R Faculty

Professors Averitte, Stinnett
Associate Professors Fanning, Norred
Assistant Professors Biddle, Ezell, Ford
Instructor T. Virgets, Coordinator of Intramurals

Secondary Education: Health and Physical Education

This career program is designed for any student who desires to gain certification in both health instruction (K-12) and secondary physical education (7-12). The curriculum focuses on professional career development in both health and physical education, yet permits a student the opportunity to gain cultural breadth through completing general education components which comprise at least one-third of the total number of hours in the program.

Since graduates of this specialization are often employed in the capacity of teacher-coach, a partial segment of the curriculum is devoted to content and laboratory experiences designed to educate the student in becoming an effective coach for athletic and intramural sports.

Admission to Teacher Education Program for Health and Physical Education

In addition to meeting criteria for admittance to TEP on page 111, a student desiring certification in health and physical education will be expected to meet these criteria:

A. Have a minimum grade point average of 2.4 in professional health, physical education and recreation course work. At least six (6) of these hours should be from neuromotor skills courses and nine (9) from theory courses within the health, physical education and recreation department.

B. Complete an interview with his or her TEP department committee.

C. Have completed fifty percent (50%) of the skill competencies as outlined in the handbook for health and physical education majors.

Any student enrolled within the teacher certification curriculum is expected to maintain and demonstrate standards of ethics reasonably attributed to an educator who holds a professional teacher certification.

Further, any student who plans to teach outside of Tennessee is strongly urged to check certification requirements with the appropriate state department of education before the end of the sophomore year in order to plan his or her program appropriately.
Education: Health and Physical Education (B.S.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English lan-
guage, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and
one from either (3 hours each), plus courses to total 12 hours
humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses including Sociology
215 (6 hours) plus one course to total 9 hours behavioral or social
sciences; for certification purposes, 3 of the hours may be in
history

Category D
2 approved natural science courses including Biology 121, 122 to
total 8 hours in natural sciences, plus Mathematics 115

Category E
1 approved interdisciplinary or non-western course (3 hours)

1 additional course outside teaching field from communications,
humanities, mathematics, natural or behavioral sciences

Health and Physical Education 021 plus one additional semester
physical education activity

Major and related courses:
21 hours in Health: Health and Physical Education 100, 154, 302, 303,
317, 456, plus approved electives such as Health Education 320,
450, 451, 452, 455 Biology 191, 192, 313, Home Economics 105
(completion of these 21 semester hours will grant endorsement in
health instruction, kindergarten through grade 12)
36 hours in physical education including: Physical Education 201,
518,332,340,401,436 and a minimum of 12 hours in professional
activities as follows:
6 hours from Physical Education 222, 224, or 225, 228, 235
4 hours from Physical Education 211, 231, 232, 233, 237
2 hours from Physical Education 212, 214, 234
Electives to complete 36 hours
26 hours education including 102,204,207,301,430 (Physical Educa-
tion 332 may substitute), 431, 438
2.40 average in teaching fields
2.00 average in education courses
Electives to complete 128 hours
See page 168 for typical course of study in health and physical
education.

Health Education (HE)

100 Personal Hygiene (3)
Significant data and facts helpful in making intelligent decisions
about personal health; crucial issues of personal, family and social
living.

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.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours. Prerequis-
itive: approval of HPE/R department head.

302 Health Care of Children (3)
In-depth consideration of health problems confronting the class-
room teacher. Prerequisite: HE 100 or teaching candidate or approval
of instructor.

Physical Education (PE)

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours. Prerequis-
itive: approval of HPE/R department head.

201 Introduction to Physical Education (3)
Role of physical activity in American education based upon the
historical, social, economic and political forces affecting physical
education in schools; philosophy and principles of profession.

318 Kinesiology (3)
Study of human motion; analysis of human motion as affected by
gross anatomy and principles of motor learning. Prerequisite: equi-
valent of Biology 121 and HE 317.

330 Physical Education in the Elementary School (3)
Practical aspects of planning, organizing, administering and evaluat-
ing programs and playgrounds; theories of play; principles of body mechanics; activities corresponding to level of growth and development; materials and methods of teaching. Required for elementary education majors.

332 Organization and Administration of Physical Education (3) Critical elements in planning, organizing, directing and evaluating school programs, curriculum structuring, teacher-coach relationships involving students, faculty, administration and community; field assignments. Prerequisite: PE 201 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. Prerequisites: HE 317 or PE 318; or approval of instructor.

400 Current Topics and Problems in Physical Education (3) Exploration of current topics and problems in physical education significant to teachers, coaches and administrators in schools and agencies providing services in physical education or related fields. Prerequisite: senior level and approval of instructor; or graduate standing.

401 Tests and Measurements in Health and Physical Education (3) Assessment of motor traits, organic development, neuromuscular development, sports knowledge and attitudes related to health and physical education; basic statistics essential to measurement theory. Prerequisites: equivalent of PE 201, 332. Mathematics 115; senior level and approval of instructor; or graduate standing.

402 Philosophical Foundations of Physical Education and Sport (3) Identification and implications of several philosophical approaches to play, games, dance, sport, physical education, recreation and athletics. Prerequisite: above junior level or graduate standing.

404 Dynamics of Motor Learning (3) Psychological aspects of learning, experimental growth and development, as effected by human movement patterns, perceptual mechanisms and cognitive processes. Prerequisite of HE 317 or above junior level; or graduate standing.

405 Administration of Interscholastic Athletics and Intramurals (3) Conceptual development of sound programs; common problems, responsibilities and personnel relationships involving school and community relative to athletics and intramurals. Prerequisite: equivalent of RE 304 or PE 332; approval of instructor; or graduate standing.

407 Psychologic and Sociologic Concepts Applied to Physical Education and Sport (3) Emphasis upon physical education and sport as a socio-cultural psychocultural force; psychological-sociologic concepts applied to physical education, recreation, sports. Prerequisite: above junior level or graduate standing.

408 Seminar, Current Advances in Bio-Kinetics (3) Current advances in kinesiologic and physiologic principles of physical education, athletic coaching and sport. Prerequisite: equivalent of HE 317 or PE 318; approval of instructor; or graduate standing.

436 Physical Education for the Exceptional Student (3) Lecture, demonstration and practical experiences in the study of exercise and sport phases for exceptional student. Prerequisite: equivalent of HE 302 and above sophomore level; or graduate standing.

490r Workshop and Seminar (2-4) Special problems; in-service education for specific groups; research in professional literature and evaluation measures to topics studied.

497r Research (1-4) Prerequisite: Approval of HPE/R department head.

499r Individual Studies (1-4) Prerequisite: Approval of HPE/R department head.

Professional Activities (PE)

The professional activities component consists of those courses which by nature are physical education/coaching techniques. Courses of this type are designed primarily for that student planning to become a teacher-coach and/or recreation specialist. A student scheduling a course within this component may expect the final grade to reflect his or her achievement in cognitive acquisitions, affective learnings and psychomotor skills. Minimal competency levels may be established according to the professional discretion of the respective instructor and each student will be responsible for demonstrating at least these minimal standards before receiving a passing mark.

211 Softball and Volleyball (2) Histories, basic skills, strategies, psychologies, contemporary offenses and defenses basic to coaching and teaching of volleyball and Softball. Prerequisite: HPE/R major or approval of instructor.

212 Conditioning and Track and Field (2) Histories, basic skills, strategies, psychologies, training systems basic to the coaching and teaching of conditioning and track and field. Field experience. Prerequisite: HPE/R major or approval of instructor.

214 Modern Dance and Exercise (2) Histories, artistic executions and expressions, integrations of ballet and modern dance techniques for communication and creative exercises. Prerequisite: HPE/R major or approval of instructor.

222 Archery and Badminton (2) Histories, basic skills, strategies, contemporary teaching techniques, skills application for recreational and competitive usage appropriate to each sport. Prerequisite: HPE/R major or approval of instructor.

224 Movement Exploration and Rhythmic Sequences (2) Skill development and teaching procedures in movement education, fundamental and contemporary movement patterns. Prerequisite: HPE/R or approval of instructor.

225 Tumbling and Gymnastics (2) Acquisition of fundamental skill development; developing techniques in floor exercises and apparatus; application of exercise theories, development of teaching competencies. Prerequisite: HPE/R or approval of instructor.

228 Aquatics (2) Development of basic and advanced swimming strokes for teaching and coaching, pool management, direction of swimming programs, emphasis on water safety. Prerequisite: HPE/R major or approval of instructor.

231 Football (2) Histories, basic skills, strategies, psychologies, contemporary offenses and defenses basic to the coaching and teaching of football. Field experience. Prerequisite: HPE/R major or approval of instructor.
232 Baseball (2)
Histories, basic skills, strategies, psychologies, contemporary of­
fenses and defenses basic to the coaching and teaching of baseball.
Field experience. Prerequisite: HPE/R major or approval of instructor.

233 Basketball (2)
History; analytical approach to fundamental concepts, basic skills,
game strategy for both the five-player and six-player game, coaching
and psychological; investigation of contemporary systems of
of offensive and defensive theories; field experiences. Prerequisite:
HPE/R major or approval of instructor.

234 Wrestling, Weightlifting (2)
Histories, basic skills, strategies, psychologies, training systems
basic to the coaching and teaching of wrestling and weight lifting.
Prerequisite: HPE/R major or approval of instructor.

235 Golf and Tennis (2)
Histories, basic skills, strategies, contemporary teaching
unions, skill application for recreational and competitive usage
appropriate to each sport. Prerequisite: HPE/R major or
ction of instructor.

237 Field Hockey and Soccer (2)
Histories, basic skill development and application, offensive and
defensive theories, field experience. Prerequisite: HPE/R major or
approval of instructor.

Recreation Education (RE)

Recreation Specialist
The recreation specialist program is a uniquely struc­
tured track for the student with career ambitions for
being employed or serving voluntarily an agency, pub­
ic or private, whose functions include the provision of
recreational type services and activities. While there are
a few courses common to both the teacher certifica­
tion and recreation specialist tracks, the focus of the
major courses in the recreation component of this
program is directed toward the practical applications
of theories and strategies learned in professional recre­
ation courses.
To reinforce this intent, a student specializing in recrea­
tion is expected to engage in several different types of
field assignments and experiences.

Internship Admittance
The internship practicum in recreation are usually
scheduled during the senior year. Normally, a student
may not gain official approval for enrollment in either
enactivity Re 479 or Re 480 prior to completing at least
6 semester hours of course work within HPE/R at

Health, Physical Education: Recreation Specialist

General Education (see pages 27-29 for list of approved courses:)

Category A
(2 appropriate courses 3 semester hours each)
English 101
English 102 or approved English course

Category B
(3 appropriate courses/3 semester hours each; other than major)
Humanities
Fine Arts
1 from either humanities or fine arts

Category C
(2 appropriate courses/3 semester hours each; other than major)
Sociology 151
Approved behavioral science

Category D
(2 appropriate courses/3 semester hours each; other than major)

Category E
(1 appropriate course/3 semester hours)
Physical education (2 semester) Physical Education 021 (major’s sec­
tion) 1 additional semester
Electives: (10 hours) may include Computer Science 101, English 200,
300, Psychology/Sociology 331, Recreation 227, 199r, 498r, Sociol­
gy 317, 322.
Other courses need approval of recreation coordinator

Major and Related Courses
Health, physical education, recreation courses (38 semester hours)
Recreation component (30 hours)* to include:
Recreation 200, 202 (2), 220 (2) 223 (2), 304, 305, 470,479 (6), 480 (6)
Health component (12 hours) to include:
Health 100, 154, 302, 317
Total of 16 semester hours in physical education include:
Physical Education 405,436 and professional activities (a minimum of
10 hours to be selected by student and assigned academic advisor
Related courses (24 hours including:
Biology 313
Human Services 405
Music 321
Sociology 220
Sociology 305
Theatre and Speech 412
Elective 6 hours: Three hours each from art and office administra­
tion. Elective hours require the approval of the recreation coor­
dinator
See page 169 for typical course of study in health, physical educa­
tion: recreation specialist.

Students graduating after July 1, 1978, must complete 6
hours American history if not taken in high school.

Admission to recreation internship - Minimum of 2.25
grade point average on all course work.
*NOTE: REQUIRED FOR GRADUATION - 2.00 overall;
2.00 average UTC; 2.00 average last 30 hours in resi­
dence; 2.00 average in recreation component of
MAJOR COURSES.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours. Prerequis­
ite: approval of program coordinator.

200 Introduction to Recreation (3)
Comprehensive survey of recreational implications for the American
way of life; philosophic and historic foundations, career oppor­
tunities and responsibilities.
202 Camping and Outdoor Education (2)
Administration and program development; skill development and practical laboratory experience. Field component.

220 Recreational Skills (2)
Skills relating to a variety of recreational activities and programs.

223 Activities, Games and Recreational Leadership (2)
Leadership skills; story games, mimetics, rhythmic activities, dance, informal games and relays; program planning. Elective for students seeking teacher certification.

227 Skill Concentration (2)
Proficiencies in sports skills essential for the professional physical educator and recreation leader. Prerequisite: For HPE/R major only. Class hours to be arranged.

304 Organization and Administration of Recreation (3)
Survey of types of programs, their objectives, content and methods, facilities, budgeting, public relations, personnel management and policy development.

305 Therapeutic Recreation (3)
Development of programs for physically or mentally ill or convalescent patients: handicapped, retarded, elderly and other special population groups.

335r Officiating Sports (1)
Rules, interpretations, fundamentals, techniques and mechanics of officiating seasonal sports. Prerequisite: HPE/R major or approval of instructor.

470 Current Topics and Issues in Recreation (3)
Survey of problems and concerns facing recreation leadership; management, facilities development, environmental impact and special population groups. Prerequisite: above junior level.

479, 480 Internship in Recreation Leadership (6, 6)
Supervised internship in leadership and administrative positions; full time contact, minimum eight (8) weeks, concurrent integrative seminars. Prerequisite: approval of program leader and HPE/R department head.

497r Research (1-4)
Prerequisite: approval of program leader and HPE/R department head.

498r Individual Studies (1-4)
Prerequisite: approval of program leader and HPE/R department head.

499r Group Studies (1-4)
Prerequisite: approval of program leader and HPE/R department head.

Course Level Designation

The second digit in the service course number indicates the level of skill required for the course. The 2 indicates elementary level while the 3 indicates advanced level. Student will be screened during the initial phase of the course to ascertain the course level in which they should participate. Upon learning of that 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 Physical Education (1)
Acquaints students with concepts, understandings and physiological values of physical activity as applied to optimal living. Laboratory in motor skills required.

022 or 023 Recreational Activities (1)
Archery, backpacking, badminton, bicycling, bowling, camping, fencing, golf, gymnastics, handball, racquetball, riflery, sculling, tennis, weight training and physical conditioning.

023 or 033 Team Sports (1)
Basketball-volleyball-softball; speedball-soccer-flag football.

024 or 034 Swimming (1)
Beginning swimming; intermediate swimming, senior lifesaving, watersafety Instructor I and II certification. Prerequisite: proficiency test to determine skill.

025 or 035 Body Mechanics (1)
Individualized program for students with disabilities who are unable to participate in regular activity classes. Prerequisite: referral by physician and departmental approval.

026 or 036 Dance (1)
Square and folk; social modern; contemporary jazz.

039 Varsity Sports (1)
Basketball, baseball, football, golf, tennis, volleyball, cross country/track and field, wrestling, riflery. Prerequisite: approval of head coach of respective varsity sport. Course graded on satisfactory/no credit basis and does not meet PE requirements for graduation. Maximum of eight hours credit may be applied toward the 128 hours required for graduation.

Service Program

(Physical Recreational Activities)

Since this University is committed to providing a varied and balanced program of activities designed to enhance each student's personal development as well as contribute to the cultural, intellectual and social life of the community, recreational activity courses provided through this diversified student service program appear appropriate for a minimal degree requirement.

Courses within the service program hold temporary 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 at least two (2) physical/recreational activities. Refer to page 28 for complete requirement. Information concerning waiver of this requirement is found on page 33.

Participants enrolled in courses within the service program wear a specific type of uniform or the appropriate clothing and footwear prescribed by the respective instructor. Uniforms may be purchased from the Bookstore on campus.

Course Level Designation

The second digit in the service course number indicates the level of skill required for the course. The 2 indicates elementary level while the 3 indicates advanced level. Student will be screened during the initial phase of the course to ascertain the course level in which they should participate. Upon learning of that 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.

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Division of Human Services

Associate Professor Sikora, Director

The Division of Human Services offers four distinct programs leading to baccalaureate degrees. These programs are criminal justice, home economics, social work, and human services: management. In addition to the undergraduate degrees, a Master of Science in criminal justice is offered.

Each degree is designed to prepare professional personnel to work in a variety of settings related to meeting human needs. The faculty and philosophy of the division emphasize the interdisciplinary relationships of these various fields of knowledge and practice.

Criminal Justice

Associate Professor Venters, Head
Professor Green (Psychology)
Associate Professor Murillo
Assistant Professors Anderson, Hall
Instructor Thompson

Bachelor of Science Degree

The baccalaureate degree in criminal justice is designed to prepare professionally competent individuals for positions within the criminal justice system. Specializations in corrections, court administration, juvenile justice, law enforcement, law and the court, and criminal justice research and planning are available.

Admissions to Criminal Justice 470 or 471, internship in criminal or juvenile justice, requires a written application filed with the coordinator of the criminal justice program 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 coordinator of the criminal justice program; and a 2.00 grade point average, both overall and in criminal justice.

Criminal Justice (B.S.)

General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or non-western course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Psychology 308 or Sociology 321
Human Services 405
21 hours criminal justice including 101,112,113 through Cleveland State Community College, plus UTC courses 301, 450, 470 (or CSCC course 251) and 471
2 of the following areas of concentration (12 hours from each area):
1. Administration of criminal justice
12 hours from CSCC Criminal Justice Program 105; UTC Criminal Justice 320, 403; Business Administration 325, 332, 351; Human Services 350, 450; Political/Science 324, 421 r (with permission) Sociology 317; Computer Science 101 or 121 or 123.
2. Corrections
12 hours from CSCC Criminal Justice Program 120; UTC Criminal Justice 312, 314, 315, 320, 330, 410; Sociology 322, 323
3. Juvenile justice system
12 hours from CSCC Criminal Justice Program 211; UTC Criminal Justice 330, 350, 408, 410; Psychology 221, 222; Sociology 322
4. Law and the court
12 hours from CSCC Criminal Justice Program 102; UTC Criminal Justice 320,405,407,408,409. Sociology 320, Political Science 323
5. Law enforcement
12 hours from CSCC Criminal Justice Program 102,203,204,211, 220; UTC Criminal Justice 300, 310, 320, 405, 409
6. Research and planning
12 hours from Computer Science 101,121 or 123; Psychology 215 or Sociology 250; Psychology 210 or Sociology 314; Criminal Justice 322, 422
Electives to complete 128 hours
See page 159 for typical course of study in criminal justice.

190r Institute in Criminal or Juvenile Justice (1-4)
Current topics in criminal and juvenile justice. Special programs, workshops, demonstration and in-service courses.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four 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.

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.

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.

303 Comparative Criminal Justice and Juvenile Justice Systems (3)
An examination of these two systems of justice as they function in other countries.

310 Law Enforcement in Criminal Justice and Juvenile Justice (3)
An examination of specific law enforcement problems as they relate to criminal justice and juvenile justice.
312 Advanced Corrections in Criminal Justice and Juvenile Justice (3)
The development of priorities, goals and standards for the correctional field.

313 The Volunteer in Criminal Justice and Juvenile Justice (3)
An examination of the role of the citizen volunteer in the two systems of justice.

314 Correctional Casework (3)
The application of counseling and interviewing techniques and theory to the correctional client.

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.

320 Advanced Administration in Criminal and Juvenile Justice (3)
Theory and practice of the administration of criminal justice system components. Emphasis is rotated between corrections, courts and law enforcement. Prerequisite: CJP* 105 or consent of the instructor.

322 Criminal Justice Planning (3)
An examination of the role of a criminal justice planning agency in a local, state or federal system and contemporary sources of funds for program planning, implementing and evaluating. Prerequisite: 301 or approval of instructor.

330 Probation and Parole (3)
An examination of the theory and practice of probation and parole with juvenile and adult offenders.

350 Juvenile Institutional Services (3)
A historical perspective of the evolution of juvenile institutions and their present day applicability and use.

400 Constitutional Law (3)
An examination of the leading constitutional principles pertaining to modern criminal procedure.

402 Organized Crime (3)
The impact of organized crime on the community, the government, legal systems and the individual and methods of combating organized crime.

403 Management Concepts in Criminal Justice (3)
Theories of criminal justice management, motivation, communication, planning and decision making. Prerequisites: CJP* 105 and CRMJ 320, or consent of instructor.

405 Advanced Criminal and Juvenile Law (3)
Common and statutory law of crimes including juvenile law, national developments and trends, inchoate offenses, and defenses to crime. Prerequisite: CJP* 112 or consent of the instructor.

407 Advanced Criminal Evidence (3)
Study of the rules of criminal evidence and trial procedure, including direct and circumstantial evidence, burdens of proof, presumptions, hearsay and dying declarations. Prerequisite: CJP* 115 or consent 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. Prerequisite: CJP 133 or consent of instructor.

409 Advanced Law of Arrest and Search (3)
Study of the rights and duties associated with arrest, search, use of force, arrest by citizens, warrant requirements, and false arrest. Prerequisites: CJP* 113 or 115 or consent of the instructor.

410 Theories of Criminal and Delinquent Behavior (3)
An analysis of theory and research on epidemiology and etiology of crime.

413 The Volunteer in Criminal Justice and Juvenile Justice (3)
An investigation into the implications for criminal justice theory and practice of selected philosophical positions and perspectives. Prerequisite: At least one course at the 200 level or above in either philosophy or religion, or approval of the instructor.

422 Advanced Planning and Evaluation in Criminal Justice and Juvenile Justice (3)
Application of scientific methodology and analysis to problem solving. A research project will be designed and evaluated. Prerequisite: 322 or approval of instructor.

430 Philosophical and Ethical Issues in Criminal Justice (3)
An examination of the role of a criminal justice planning agency in a local, state or federal system and contemporary sources of funds for program planning, implementing and evaluating. Prerequisite: CJP* 105 or consent of the instructor.

440 Science and Technology in Criminal Justice (3)
A historical perspective of the evolution of juvenile institutions and their present day applicability and use.

450 Integrative Criminal Justice Systems Seminar (3)
Discussion of selected system-wide problems and topics in criminal justice. Research and oral presentation by the student. Prerequisite: Senior standing, criminal justice major. Statistics and Methodology Course.

470, 471 Internship in Criminal or Juvenile Justice (3,6)
Supervised internship in a criminal justice agency. Prerequisite: criminal justice major, junior standing and approval of instructor. Courses may be taken concurrently or consecutively.

497 Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

Master of Science, Criminal Justice

The general purpose of the Master of Science degree program in criminal justice is to prepare fully qualified, competent professional personnel for leadership roles within the criminal justice program.

The M.S. program consists of 36 semester hours—18 semester hours core, 12 semester hours concentration (including the seminar), and 6 hours of thesis or 6 hours of approved elective coursework. An internship is required, substitution for which may be made by permission of the Graduate Committee in Criminal Justice. Each concentration requires a minimum of 12 hours. The four areas of concentration are: criminal justice planning and evaluation, criminal justice education, criminal justice system applications and correctional psychology.

Admission—In addition to meeting requirements for admission to the graduate division, an applicant must submit an official score report for the MAT. Applicants also must submit “Employment History” forms.

The graduate program is designed for those students who have completed undergraduate majors in criminal justice. Other students desiring to enter the graduate program may qualify by completing specified courses for undergraduate credit. Upper level foundation courses are required for students who lack adequate preparation in criminal justice. These
courses are in areas of criminological theory, law, and integrative seminar.

Admission to candidacy—Graduate students in criminal justice must successfully complete qualifying examinations before they may be approved for admission to candidacy for the degree.

The qualifying exam has been adopted to assist in the assessment of the student’s graduate work capability. The structure of the exam will enable the student to demonstrate his or her level of understanding and integrative ability with course material, which is to be analyzed on a broader perspective than is done within each course. A student’s analysis and discussion of the subject matter should attend to systematic considerations and display the student’s insights and conclusions.

All students in the Master’s program will be required to take a qualifying exam upon completion of twelve (12) semester hours, including a minimum of nine (9) hours of core-course requirements, and prior to completion of not more than eighteen (18) graduate credit hours. Upon successful completion of the qualifying exam, the student will be advanced to candidacy for the degree and permitted to continue work toward fulfillment of the degree requirements.

Comprehensive examinations—Comprehensive examinations are not required.

Outline of Criminal Justice Masters Program

Core Courses (Taken by all students)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criminal Justice 500</td>
<td>Research and Methodology (prerequisite: Statistics and Methodology course)</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 501</td>
<td>Social Control/Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 505</td>
<td>Social Administration within the Criminal Justice System</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 507</td>
<td>Social Habilitation</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 520</td>
<td>Crime Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 530</td>
<td>Systems Planning</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 599r</td>
<td>Thesis—Optional (1-6 hrs.)</td>
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</table>

Concentrations

Planning and Evaluation

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Criminal Justice 521</td>
<td>Crime Analysis Methods</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 535</td>
<td>State, Local and Regional Planning</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 539</td>
<td>Perspectives in Criminal Justice Planning and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 560</td>
<td>Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 570</td>
<td>Seminar in Planning and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 597r</td>
<td>Individual Studies</td>
<td>3</td>
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</table>

Criminal Justice System Application

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Criminal Justice 540</td>
<td>Public Policy in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>Education 544</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>Education 547</td>
<td>Group Techniques in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 410</td>
<td>Theories of Criminal and Delinquent Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 550</td>
<td>Crime Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 405</td>
<td>Advanced Criminal and Juvenile Law</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 560</td>
<td>Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 570</td>
<td>Criminal Justice System Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 597r</td>
<td>Individual Studies</td>
<td>3</td>
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Education

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>Education 544</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>Education 547</td>
<td>Group Techniques in Counseling</td>
<td>3</td>
</tr>
<tr>
<td>Education 535</td>
<td>Curriculum Development in Higher Education</td>
<td>3</td>
</tr>
<tr>
<td>Education 507</td>
<td>Current Issues in Higher Education</td>
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</tr>
<tr>
<td>Education 502</td>
<td>Theories of Learning</td>
<td>3</td>
</tr>
<tr>
<td>Education 481</td>
<td>Educational Tests and Measurements</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 560</td>
<td>Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 570</td>
<td>Seminar in Planning and Evaluation</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 597r</td>
<td>Individual Studies</td>
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Correctional Psychology

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Psychology 448</td>
<td>Theories of Personality</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 507</td>
<td>Human Behavior in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 521</td>
<td>Theories of Therapy</td>
<td>3</td>
</tr>
<tr>
<td>Psychology 522</td>
<td>Learning &amp; Behavior Modification</td>
<td>3</td>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Education 544</td>
<td>Theories of Counseling</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 560</td>
<td>Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 570</td>
<td>Criminal Justice System Seminar</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 597r</td>
<td>Individual Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

(Psychology 345—Psychology, Tests and Measurements is a prerequisite for this concentration.)

12 Semester hours constitute a concentration. Psychology 521 and Education 544 are equivalent.

Criminal Justice

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Criminal Justice 500</td>
<td>Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 501</td>
<td>Social Control/Prevention</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 505</td>
<td>Social Administration within the Criminal Justice System</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 520</td>
<td>Crime Analysis</td>
<td>3</td>
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<tr>
<td>Criminal Justice 530</td>
<td>Systems Planning</td>
<td>3</td>
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<tr>
<td>Concentration or Elective Course</td>
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SUMMER SESSION

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Criminal Justice 560</td>
<td>Internship in Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 597r</td>
<td>Individual Studies</td>
<td>3</td>
</tr>
<tr>
<td>PLUS</td>
<td>Two Concentration or elective courses</td>
<td>6</td>
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<tr>
<td>Total</td>
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</table>

Typical Sequence for Part-time Students in Criminal Justice

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>Criminal Justice 500</td>
<td>Research Methodology</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 501</td>
<td>Social Control/Prevention</td>
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<tr>
<td>Criminal Justice 505</td>
<td>Social Administration within the Criminal Justice System</td>
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</tr>
<tr>
<td>Criminal Justice 507</td>
<td>Social Habilitation</td>
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<tr>
<td>Criminal Justice 520</td>
<td>Crime Analysis</td>
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<tr>
<td>Criminal Justice 530</td>
<td>Systems Planning</td>
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<tr>
<td>Concentration or Elective Course</td>
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SUMMER SESSION

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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Criminal Justice 530</td>
<td>System Planning</td>
<td>3</td>
</tr>
<tr>
<td>Criminal Justice 505</td>
<td>Social Administration within the Criminal Justice System</td>
<td>3</td>
</tr>
</tbody>
</table>

(Philosophy 345—Philosophy, Tests and Measurements is a prerequisite for this concentration.)

12 Semester hours constitute a concentration. Psychology 521 and Education 544 are equivalent.
Courses For Graduate Students Only

Only graduate students admitted to the appropriate program in criminal justice may register for any of the courses numbered 500 or above; all other graduate students must have written permission of the instructor.

500 Research Methodology (3)
Emphasis on the development of research and design skills and related competencies encompassing writing skills, development of research resources, library utilization and computer applications involved in examining and reporting criminal justice issues. Prerequisite: Basic statistics course; research methods course.

501 Social Control/Prevention (3)
An historical study of the development and evolution of the concept of social control and its implication for prevention; consideration of enforcement; political and societal impact toward social regulation.

505 Social Administration within the Criminal Justice System (3)
An analysis of the administration of the criminal justice process in theory and practice in the United States. Emphasis on the varying social definitions of criminal justice historically and culturally; the functional problems in implementation of the American judicial process model; the interrelationship with other components of the system.

507 Social Habilitation (3)
Analysis of crime prevention and control theories, and the habilitation of criminal offenders including various measures of social intervention.

520 Crime Analysis (3)
Examination of various approaches to crime analysis and its impact on planning for criminogenic related programs.

521 Crime Analysis Methods (3)
Identifying patterns, isolating factors and developing capabilities for projection and forecasting of criminogenic problems. Prerequisite: 520.

530 Systems Planning (3)
Systemic approaches to criminal justice problem resolution and development of alternatives.

535 State, Local and Regional Planning (3)
Survey of the development and utilization of comprehensive systems planning for the deployment of resources and manpower. Prerequisite: 530.

539 Perspectives in Criminal Justice Planning and Evaluation (3)
Examination of current literature related to planning and evaluation methodology, successes, limitations, and approaches.

540 Public Policy in Criminal Justice (3)
Analysis of public administration and management concepts and their application to the criminal justice system.

550 Crime Prevention (3)
Analysis of past attempts to control deviant behavior and extrapolation into future approaches.

560 Internship in Criminal Justice (3)
Supervised teaching practicum in Criminal Justice 200 (The Criminal in Society) or other appropriate teaching experiences approved by the program administrator. This course will require a minimum of 100 hours of observation and teaching in addition to a 2 hour weekly seminar on instruction.

570 Criminal Justice Seminar (3)
The selection, development and presentation of topics germane to the student’s concentration. Synthesis and analysis of the topics’ applicability for integration into the criminal justice system.

597r Individual Studies (3)
To enable a student to study selected topic in depth. Requires a written outline of work to be done, a statement describing the competencies to be developed and the method of assessment to be used in evaluation. Prerequisites: Approval of advisor and the chair of the Graduate Committee in Criminal Justice.

598 Research (3)
To enable a student to conduct independent research. Prerequisites: Criminal Justice 500, admission to graduate degree candidacy, approval of program advisor and chair of Graduate Committee in Criminal Justice. Requires the submission of a formal prospectus two weeks prior to registration.

599r Thesis (1-6)

Home Economics

Assistant Professor Cochran, Head
Assistant Professors Tanner, Temple
Instructor Rhodes

Home Economics offers professional preparation for a variety of careers. Students desiring teacher certification should follow Education: Home Economics. A student preparing for a career in fashion merchandising, consumer relations, interior design or food service management should meet the requirements for the Home Economics-Business option selecting appropriate electives. The undergraduate recommendation of The American Dietetics Association may be fulfilled by meeting the requirements for a B.S. degree in Home Economics: General with appropriate electives selected in consultation with an advisor. Students interested in careers in daycare, parent education and other family service positions should follow the Home Economics: General major selecting appropriate electives within the recommendations by the National Council of Family Relations; outlines are available upon request.

Home Economics: General (B.S.)
General Education (see pages 27-29 for list of approved courses):
Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)
Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)
Category C
2 approved behavioral or social science courses (6 hours; approved
related courses below may apply)

Category D
2 approved mathematics or natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Economics 101
3 hours sociology
Psychology 101, 331 or Education 204, 207
Biology 210
8 hours from Biology 192, Chemistry 351, 352 or any course that qualifies for Category D
Chemistry 121, 122
36 hours home economics including 101, 104, 105, 201, 206, 301, 304, 350, plus electives
Electives to complete 128 hours

See page 169 for typical course of study in home economics: general.

Home Economics: Business (B.S.)

General Education (see pages 27-29 for list of approved courses):
Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours; approved related courses below may apply)

Category D
2 approved mathematics or natural or applied science courses (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Economics 101
3 hours sociology
Psychology 101, 331 or Education 204, 207
Biology 210
8 hours from Biology 192, Chemistry 351, 352 or any course that qualifies for Category D
Chemistry 121, 122
36 hours home economics including 101, 104, 105, 201, 206, 301, 304, 350, plus electives
Electives to complete 128 hours

See page 169 for typical course of study in home economics: business.

Education: Home Economics (B.S.)

General Education (see pages 27-29 for list of approved courses):
Category A
2 approved courses in written communication in the English language, at least one at the freshman level, to total 6 hours

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each), plus courses to total 12 hours humanities/fine arts in three fields other than history

Category C
2 approved behavioral or social science courses other than Education 101, 3 hours sociology plus one course to total 9 hours behavioral or social sciences

Category O
2 approved mathematics or natural or applied science courses plus
Mathematics 115 (approved related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Biology 121, 122, 210
Chemistry 121, 122
36 hours Home Economics including 101, 104, 105, 201, 206, 207, 300, 301, 302, 303, 304
26 hours Education including 102, 204, 207, 301, 430, 431, 438
2.00 average in teaching fields and in Education courses
Electives to complete 128 hours

See page 170 for typical course of study in home economics education.

101 Design Fundamentals (3)
Aesthetic qualities of the environment including elements of basic design and awareness of aesthetic expression in everyday life. Emphasis on using design to create moods and communicate ideas.

104 Clothing Construction (3)
Proficiency based techniques and principles of garment construction. Lecture two hours; laboratory two hours.

105 Nutrition and Man (3)
An introduction to nutrition with an integrated emphasis on the scientific, psychological, sociological and economic aspects of nutrition. Impact of optimal nutrition on human development. Application of knowledge to the home and school situation.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

201 Consumer Textiles (3)
Modern fibers, yarns, fabrics and finishes for apparel and home furnishings. Trade practices and consumer problems.

204 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. Crisis and adjustments.

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.

206 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. Lecture two hours; laboratory two hours. Pre- or co-requisites: Chemistry 121, 122.

207 Food Management and Marketing (3)
Nature of the American food market, marketing procedures, resource management, regulations in the food industry, consumer food technology, cultural and regional influences in food preference, menu development, and styles of service.

220 Interior Space Design (3)
Review and analysis of space needs for people. Techniques of analyzing floor plans. Drawing skills, symbols and terminology used in interior design. Lecture one hour; laboratory four 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. Lecture one hour; laboratory four hours. Prerequisite: 101.

300 Child Development Lab (1)
Supervised observation in community agencies within appropriate age levels. Co-requisite: 301.

301 Child Development (3)
Growth and development of infants and pre-school children within the familial setting. Review of current research relating to child rearing. Emphasis on parenthood and parenting skills. Directed experience in observation and participation in approved nursery and day care centers. Lecture two hours, laboratory two hours. Prerequisites: lower level child study course from psychology or education.

302 Clothing Construction (3)
A comprehensive study of clothing construction for educators and consumer consultants with emphasis on challenging problems in the use of modern fabrics, intricate design details, fitting and pattern alterations. Lecture two hours, laboratory two hours. Prerequisites: 101, 104.

303 Interior Furnishings (3)
Study of design characteristics of historical and contemporary furniture and interiors including the dominant, socio-economic influences on design development. An overview of the selection and use of interior furnishings.

304 Management for Effective Living (3)
The management process as applied to the home and personal environment. Use and development of human and material resources in relation to values and goals. Emphasis on time management, money management and financial security.

305 Advanced Nutrition (3)
Food nutrients in physiological and biochemical processes of the body. Emphasis on their relationship to health and human development. Prerequisites: Home Economics 105 or equivalent; Chemistry 121, 122 or equivalent.

306 Housing and Equipment (3)

310 Tailoring (3)
Tailoring of suits, coats, ensembles with emphasis on various professional techniques used in manufacturing and hand tailoring, lecture one hour, laboratory four hours. Prerequisite: 302 or approval of the department.

312 Fashion Fundamentals (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.

313 Merchandising (3)
Principles and practices of merchandising in relation to the retailing of apparel and textile products. Problem solving approach with the consumer as a major consideration in planning merchandise assortment, presentation, and promotion.

315 Elements of Interior Design (3)
Components of the interior basic to the art of interior design: wall treatments, floor coverings, window treatment, lighting, accessories, fabric selections, furniture arrangements. Design principles in putting the elements together. Patios and outdoor living furnishings. Energy conservation. Prerequisites: 101, 201 or equivalent.

322 Interior Design Synthesis (3)
Development of creative ideas for the total room concept. Problems and projects to integrate the interior elements to achieve predetermined goals and effects for inhabitants: furniture layouts, simple perspective, furniture, accessory and color selection. Projection of the psychological response of inhabitants to the total design. Lecture one hour, laboratory four hours. Prerequisites: 220, 222, and 303 or equivalent.

326 Interior Design Presentations (3)
Advanced projects using creative design techniques in a variety of media as a means of visual communication and precise delineation. Lecture one hour, laboratory four hours. Prerequisites: 322 or equivalent.

328 The Consumer and the Market (3)
Consumer affairs in America: rights, responsibilities, issues, challenges and forces influencing consumer demand and decision-making. The marketplace in today's economy. Consumer resources and protection.

330 Experimental Food Science (3)
Chemical and physical factors affecting food preparation, including experimental methods and individual experimentation in selected food problems. Lecture one hour, laboratory four hours. Prerequisites: Home Economics 206, Chemistry 122, Microbiology 210.

331 Food & Nutrition: Issues and Policies (3)
Issues and policies of food and nutrition focusing on local, regional, national, and international concerns in relation to population, special group problems, cultural and economic factors. Food safety issues.

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, live performances. General areas of public relations.

390 Images of Western Living (3)
Perspectives of the near environment of Western people using a study of styles of architecture, furniture, fashion and food patterns of selected historic periods. Exploration of the combination of economics, geographic, social and cultural patterns which influenced or dictated their development.

401 Diet Therapy (3)
Application of diet designed for the prevention and treatment of diseases which are influenced by food intake. Prerequisite: 305.

402 Seminar (3)
Professional procedures in consumer and family related professions including trends, developments, challenges, opportunities, ethics and business procedures. Prerequisite: approval of the department.

405 Home Economics Practicum (3)
Directed field experience in a selected professional area of home economics, including a weekly seminar and faculty supervision within an approved institution, agency or business establishment in the Chattanooga area. Prerequisite: senior status in home economics and approval of department.

430 Food System Administration (3)
Management, organization, administration of food service in institutions.

431 Quantity Food Service (3)
Principles, methods and techniques in planning, purchasing, production and service of food in quantity, selection and use of equipment, and quality standards. Laboratory experiences in approved local institutions. Pre-or co-requisite: 430.

497 Research (1-4)

498 Individual Studies (1-4)

499r Group Studies (1-4)
The following list is presented as a guide for selecting electives. In all cases students should discuss their career plans with an advisor so that an individualized plan of study can be developed. Detailed outlines are available from the department.

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<td>213 European</td>
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<td></td>
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<td>309 Commercial Design</td>
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<tr>
<td></td>
<td>Home economics electives to equal 36 hours</td>
<td>To equal 128 hours</td>
</tr>
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</table>

| **Food Service Management** | 201 Textiles | 103 Intro to Business |
| 206 Food Science           | 201 Accounting | 201 Accounting |
| 207 Food Management & Marketing | 313 Basic Marketing | 313 Basic Marketing |
| 430 Food Systems Administration | 315 Behavioral Concept in Administration | 315 Behavioral Concept in Administration |
| 431 Quantity Food Service  | 362 Advertising | 362 Advertising |
| 402 Seminar: Professional Procedures | 363 Sales Management | 363 Sales Management |
| 405 Practicum-Restaurant Management | 364 Retailing | 364 Retailing |
| Home economics electives to equal 36 hours | Theatre and Speech | To equal 128 hours |

| **Interior Design** | 201 Textiles | 103 Intro to Business |
| 220 Interior Space Design | 201 Accounting | 201 Accounting |
| 222 Color System          | 313 Basic Marketing | 313 Basic Marketing |
| 304 Interior Furnishing   | 315 Behavioral Concept in Administration | 315 Behavioral Concept in Administration |
| 306 Housing & Equipment  | 362 Advertising | 362 Advertising |
| 315 Elements of Interior Design | 363 Sales Management | 363 Sales Management |
| 322 Interior Design Synthesis | 364 Retailing | 364 Retailing |
| 326 Interior Design Presentation | 364 Retailing | 364 Retailing |
| 390 Images of Western Living | 364 Retailing | 364 Retailing |
| 402 Professional Procedures | 364 Retailing | 364 Retailing |
| 405 Practicum             | Theatre and Speech | To equal 128 hours |
| Home economics electives to equal 36 hours | Theatre and Speech | To equal 128 hours |

Art
211 Prehistoric-Byzantine
212 Romanesque-Baroque
213 European
309 Commercial Design
To equal 128 hours
Human Services Program

Interdisciplinary and Management Faculty

Associate Professor Sikora, Director
University Professor Sumberg
Associate Professors Butterfield (Education), Richards (English)
Assistant Professors Bender, Myers, Printz (Psychology)

The human services program offers a Human Services: Management degree and interdisciplinary service courses.

Human Services: Management

The Human Services: Management degree program is intended to prepare entry level supervisors and managers for public and private organizations which provide a wide spectrum of human and community services.

Admission to Human Services 470 and 471, management community laboratory, must be obtained from the director of field placement at least ninety days prior to enrollment in the course. An application form should be obtained from the division office and filed well in advance of the ninety day requirement. In addition, Human Services: Management majors must present evidence of a minimum 2.00 overall grade point average and completion of Human Services 350 before enrolling in Human Services 470.

Human Services: Management (B.S.)

General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses other than human services (6 hours)

Category D
2 approved mathematics or natural or applied science courses (6 hours)

Category E
1 approved interdisciplinary or nonwestern course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
12 hours from one of the following: economics, political science, psychology, sociology/anthropology (Behavioral science courses used for general education purposes may not satisfy this requirement, but behavioral science courses listed below may count)
9 hours from Business Administration 201, 202, 306, 332, 407; Economics 306,425,455; Political Science 233, 331; Sociology 318 or equivalent approved courses
3 hours from Business Administration 325, 351; Psychology 316, Psychology/Sociology 331, Sociology 220, 317 or equivalent approved course
3 hours of research or statistics from Business Administration 211, Mathematics210, Psychology201,202,203,Sociology250or314or equivalent approved course
18 hours human services including 101,102,201,350,405,450
9 hours practicum from Human Services 470, 471, Political Science
471 r
Electives to complete 128 hours
See page 170 for typical course of study in human services: management.

101 Human Perspectives (3)
An introduction to the various scientific, behavioral and humanistic perspectives and ways of securing knowledge and understanding of humans and their problems.

102 Human Existence and Urban Society (3)
An interdisciplinary examination of characteristics and problems of post-industrial urban society with special reference to the possibilities and dangers for future human existence.

199r Special Projects (1-4)
Individual or group projects. Prerequisite: approval of the director of human services. Maximum credit four hours.

201 Social Policy and Social Change (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.

300 Environment of the Professions (3)
Interdisciplinary analysis of the professional and paraprofessional in modern and contemporary societies. Emphases on the work environment and work as process.

350 Human Services Supervision (3)
Concepts and techniques appropriate to supervision in human services and governmental agencies and organizations.

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. Prerequisites: six hours of behavioral sciences.

450 Administrative Processes (3)
Administrative procedure, processes, planning and decision-making in human services and governmental settings. Prerequisite: 350 or approval of instructor.

470, 471 Community Laboratory (6) (3)
Supervised internship in a human services setting related to a student’s academic and/or career goals; concurrent two-hour, integrative seminar emphasizing issues common to field experience settings. Prerequisites: 350, approval of the director of human services, and junior standing. Courses may be taken concurrently or successively.

495r Honors (1-4)
Maximum credit four hours.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)
Social Work

Associate Professor T. Brown, Head
Assistant Professor Lamb, Director of Field Placement
Assistant Professors Roberts, Walker, Williams, Yoelin

Admission and Continuation Policies
Enrollment in the social work program is limited to one hundred majors; application alone will not insure admission. Students wanting to enter the social work program should designate pre-social work as their major. Once this declaration has been made the student will be assigned to social work faculty for advisement. Pre-social work majors are required to fulfill the following for admission to the social work program:

1. Earn a 2.00 cumulative grade point average in 45 semester hours which include the following pre-requisite courses:
   a. Biology 121
   b. Sociology 151
   c. Psychology 101
   d. Anthropology 208
   e. Social Work 150
   f. Social Work 205
   g. Human Services 201
2. Earn a minimum 2.6 grade point average in Social Work 150, 205 and Human Services 201.
3. Make candidacy known sixty days prior to the semester for which admission is sought by filing formal application.
   a. Obtain and complete application form from the office of the coordinator of the social work program.
   b. Submit written self-assessment.
   c. Write autobiography.
   d. Indicate subscription to the social work Code of Ethics.
4. Complete personal interview with a social work faculty member.
5. The Social Work Admissions and Continuation Committee (SWACC) reviews application and makes recommendations. Applicants accepted for admission shall be notified in writing and assigned an academic advisor.
6. Upon acceptance in the program and completion of social work 300 and 301, students will file for field placement. All field placement assignments are made by the director of field placement. In the event that more qualified students submit applications than there are vacancies, the social work Admissions and Continuation Committee reserves the right to apply additional screening procedures.

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.

When majors complete the necessary requisites and present a grade point average of 2.50 in the major, they should submit application to the SWACC for admission to the advanced social work methods course (Social Work 404) and Field Instruction II (Social Work 470). The application for both courses should be filed at least ninety days prior to the beginning of the semester in which these courses will be taken.

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. A grade point average of 2.50 in the complete major will be required for graduation.

Human Services: Social Work (B.A.* and B.S.)
General Education (see pages 27-29 for list of approved courses):
Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)
Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)
Category C
2 approved behavioral or social science courses other than human services (6 hours; approved related courses below may apply)
Category D
2 approved mathematics or natural or applied science courses (6 hours)
Category E
1 approved interdisciplinary or nonwestern course (3 hours)
Health and Physical Education 021 plus one additional semester physical education activity.
• Foreign language through second college year (B.S. degree only)

Major and related courses:
35 hours social work core including 150, 205, 300, 301, 304, 370, 400, 404, 406, 470.
9 hours interdisciplinary core including Human Services 101, 201, 405
34 hours cognate courses including Psychology 101, Sociology 151, Anthropology 208, English 300, Home Economics 328, Biology 121, Sociology 305, Philosophy 251, or 322, or 425; 3 hours introductory statistics course from one of the following: Sociology 250, Math 210, Psychology 201, Business Administration 211; Political Science 101, and Economics 101
Electives to complete 128 hours.
See page 171 for typical course of study in social work.

150 Introduction to the Field of Social Welfare (3)
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.

199r Special Topics (1-4)
Individual or group projects. Prerequisite: Approval of the coordinator of the social work program. Maximum credit four hours.

205 Survey of the Social Service Delivery System (3)
Survey of social welfare delivery systems with consideration of their purposes and functions in meeting human needs. Attention given to historical development and present structure of the social welfare system. Prerequisite: Social Work 150. Credit not allowed in both Human Services 303 and Social Work 205.

300 Basic Skills for Social Work Practice (4)
Fundamental skills and theory for practice in the field of social work. Emphasis upon communication skills, informational systems, organizational structure, policy and their impact upon role execution. Not open to pre-social work students.
301 Human Behavior—Environmental Systems (3)
Examination of the various levels of human growth, development
and behavior with a focus on environmental systems. Prerequisites:
Anthropology 208, Psychology 101, Biology 121. Not open to pre-
social work students.

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. Prerequisites: Human Ser-
dvices 201; Social Work 205, 300; co-requisite: Social Work 370.

305 Legal Issues in Social Work (3)
Identification and analysis of common legal issues and problems
encountered by the professional social worker. Prerequisite: Ap-
proval of coordinator of social work program.

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 ser-
VICES to the unwed parent and the out-of-wedlock child.

320 Introduction to Social Group Work Practice (3)
An introduction to theoretical frameworks for using social groups as
media 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.

370 Field Instruction I (4-6)
An opportunity for application and integration of method theory
through supervised experiential learning in a social agency or set-
ing. A minimum of 12 hours per week in such setting and a one-hour
integrative seminar required. Prerequisites: Human Services 201;
Social Work 205, 300; co-requisite: Social Work 304. Six hours re-
quired for students matriculated prior to the 1976-77 catalog.

400 Social Welfare Policy Research (3)
An examination of the role of research in social policy; its functions
in identifying needs, describing and evaluating programs, analyzing
processes and predicting results. A major project integrating course
concepts and content with field experience required. Prerequisites:
An introductory statistics course; Human Services 201; Social Work
205, corequisites: Social Work 404 and 470.

401 Introduction to Social Work Practice in the Health Field (3)
Designed to introduce the student to the health care system. Focus
will be upon the impact this system has for social work. Prerequisite:
301; other students admitted by written permission of the instructor.

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. Prerequisites: An introductory statistics course;
300, 301, 304, and 370; corequisites: 400 and 470.

406 Social Values and Ethics in Social Work Practice (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.

411 Social Work and the Family in Crisis (3)
An examination of problems experienced by dysfunctioning families
in contemporary American society and the role of social work in
relation to these problems. Specific areas of concentration will in-
clude emotional and physical abuse (both child and adult), child
neglect, divorce, changing values relating to sex roles and patterns
of heterosexual and homosexual relationships.

420 The Social Welfare System: Its Impact Upon Women (3)
A critical analysis of the social welfare system’s impact upon women,
analysis of their roles as consumers and providers of social welfare
services.

430 Thanatology in Social Work (3)
A multi-disciplinary exploration of the phenomena of death and
dying and their implications for social work practice.

431 Social Work Practice for the Aged (3)
A multi-disciplinary approach to the development of an understand-
ing of the roles, treatment modalities and practice settings in which
the professional social worker may become involved working with
older adults.

432 Programs and Services for the Aged (3)
Consideration will be given to the various strategies of social inter-
vention designed to meet the specific needs of the aged population.
Attention will also be given to social policy development in the area
of aging.

470 Field Instruction II (6)
Advanced field instruction in a supervised social work setting. A
minimum of 20 hours per week required in such setting. Students
must demonstrate necessary knowledge and skills required for be-
ginning practice. Concurrent two-hour integrative seminar
emphasizing issues common to field experience. Prerequisites: An
introductory statistics course: 300, 301, 304, and 370; co-requisites:
400 and 404.

495r Honors (1-4)

497r Research (1-4)
Prerequisite: Approval of coordinator of social work program.

498r Individual Studies (1-4)
Prerequisite: Approval of coordinator of social work program.

499r Group Studies (1-4)
Prerequisite: Approval of coordinator of social work program.
Military Science

Reserve Officers Training Corps (ROTC)
Professor Morris, Head
Assistant Professors Boessen, Torbert, Williams, Wilson

Admission Requirements
The Military Science Department offers courses in general military subjects which may be applicable to any student regardless of his or her career intentions. The overall objectives are:
1. To provide general orientation courses open to all students in the basic course.
2. To provide selected students for the advanced course an opportunity to seek a commission in the U.S. Army or the Army Reserve.
3. In conjunction with other college disciplines, to develop individual character and attributes essential to an officer.

Military Science I and Military Science II
The general requirements for admission in the basic course ROTC program are:
a. Be physically qualified.
b. Be not less than seventeen years of age.

Military Science III and Military Science IV

Continuation Standards
All cadets enrolled in the advanced course of the Army ROTC who seek a commission must:
a. Have either completed the basic course, three (3) years junior ROTC, have the required amount of prior military service or completed the six-week basic summer camp. The basic summer camp is designed specifically to fill the needs of community and junior college graduates and students of four-year colleges who have not taken ROTC during their first two years. By attending the five weeks’ camp, students qualify to enter ROTC directly as a junior simultaneously earning approximately $600. Attendance does not obligate an individual to enter the advanced ROTC program. Applicant must contact the Military Science Department to process early during the spring semester.
b. Have at least one academic year of college remaining. (Basic camp attendees must have two academic years of college remaining, either graduate or undergraduate.)
c. Be enrolled as a full-time student at The University of Tennessee at Chattanooga or other accredited four (4) year institution in the Chattanooga area.
d. Be at least seventeen years of age.
e. Meet military screening and physical requirements.

Regularly enrolled students, who meet the academic prerequisites and do not desire a commission, may take individual courses as electives with the permission of the department chairman and their academic advisor.

Course Content
The basic course is composed of the first four semesters of military science, two of which are enrichment courses presented in conjunction with the department of human services and the department of geography. No active duty commitment is required of students taking the basic course.

The advanced course is composed of the last four semesters of military science. It includes a five-week summer camp at an army installation at the end of the junior year. The student successfully completing the advanced course will, upon graduation, be commissioned a Second Lieutenant in the U.S. Army.

Uniforms and Pay
The basic course ROTC student receives uniforms and textbooks for ROTC free. Issued items must be returned at the end of the school year or upon disenrollment from the ROTC program.

Advanced course ROTC students sign a contract with the U.S. Government which requires them to complete the advanced course and accept a commission upon graduation. Students receive $100.00 each month while enrolled in the advanced course, approximately $500.00 for attending summer camp plus travel pay to and from summer camp.

For information about Army ROTC scholarships, see the financial aid section of this catalog.

Military Science Curriculum

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<td>MS 101 Fundamentals of Military Organization, Leadership, and Management</td>
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<td>MS 201 American Military History</td>
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<td>MS 301, 302 Advanced Leadership and Management</td>
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<td>MS 400 Army ROTC Summer Studies</td>
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<td>MS 401, 402 Military Management and Seminar</td>
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<td>Total</td>
<td>26</td>
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</table>

Students in all of the above classes participate in the equivalent of one hour of leadership laboratory per week.

On the basis of previous honorable active military service in any branch of the armed services, or attendance at the basic summer camp, participation in the junior ROTC program in secondary schools, a student may be exempt from all or portions of the basic course.

Course Descriptions

101 Fundamentals of Military Organization, Leadership and Management (3)
Organization, missions and functions of the Army; ROTC orientation; historical development of the Army; introduction to management of military resources; practical experience in rappelling, orienteering, and riflery.

201 American Military History (3)
A study of the American military institutions, policies, experiences and traditions from the Colonial Indian Wars to Vietnam.

301, 302 Advanced Leadership and Management (3,3)
Roles of the various branches of the army; development of student’s ability to prepare and present instruction; study of leadership and management; and study of the leader’s role in directing and coordinating efforts of individuals and small units in the execution of offensive and defensive tactical missions. Prerequisite: Acceptance into the advanced course.
400 Army ROTC (4)
A five week statutory prerequisite to commissioning; conducted during the summer months following Military Science 302 at an army installation. Presentations made during subsequent semesters.

401,402 Seminar in Leadership and Management (3,1)
Application of leadership principles stressing responsibilities of the leader through practical exercises in small unit tactics, leadership and management problems involved in unit administration, material readiness and military justice. Prerequisite: 400 or permission of department head.

Nursing*

Professor Sczekan, Director
Associate Professors Charles, Headricks, M. Jackson
Assistant Professors Butterfield, Gilmore, D. Green, Portnoy, Troxel.
Instructors Farren, Norwood, Stevens, Volz, Williams.

Nursing students must meet the same admission requirements as those required for all applicants to the University. Two units of high school algebra or college preparatory mathematics and one unit of high school chemistry are desirable.

Enrollment in nursing is limited. Admission to the University does not insure acceptance to the nursing courses. Students seeking a B.S. in nursing should apply for admission to the University well in advance of the expected enrollment date. Academic advising for all students declaring a pre-nursing or nursing major must be done by a member of the nursing faculty.

Students will be considered for admission to the first nursing course after successful completion of the following requirements:

1. Completion of 45 semester hours including the following prerequisite courses with a cumulative grade point average of 2.25 and no grade lower than C
   A. Chemistry 121, 122, Biology 191,192, 210
   B. Sociology 151
   C. Psychology 101
   D. Two or three hours of mathematics
   E. Anthropology 208 or Psychology 221
   F. Home Economics 105 or 305
2. Personal interview with a department faculty member
3. Completion of the required physical examination
4. Recommendation of the department admission committee

Requests for exceptions from admission requirements, supported by evidence of extenuating circumstances, will be considered by the committee on admissions but only after an official application for admission has been filed.

Admission to the Nursing Major:
The Admissions Committee of the Department of Nursing has the responsibility for selecting those students to be admitted to the nursing major. This committee meets in May of each year to review applications. Fifty basic students will be admitted yearly to the first nursing course. Selection of these students will be based on the following criteria:

*Curriculum revision is in process; modification will be incorporated as the program develops.

1) Completion of prerequisite courses
2) Achievement of 2.25 cumulative grade point average
3) Formal acceptance to The University of Tennessee at Chattanooga
4) Declaration of pre-nursing as applicant's major
5) Date of declaring pre-nursing as applicant's major
6) Date of personal interview with member of nursing faculty
7) Physical and emotional characteristics appropriate for nursing practice

In addition to regular education costs, nursing students must meet the following expenses:(costs are approximate)

- Uniforms and laboratory coat: $90.00
- Standardized tests: $15.00
- Liability insurance (yearly): $20.00
- Transportation*

*Clinical experience in nursing is obtained in a variety of health care settings in local and outlying areas. Students are individually responsible for transportation to clinical agencies and on selected field trips.

continuation standards

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 uniformly 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, and c) maintain an active malpractice insurance policy.
2. A student who transfers into the nursing program at The University of Tennessee at Chattanooga 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 is lower than a C

3. Students will be allowed to repeat a nursing course one time. Any student who is enrolled in a course beyond the mid-term point, and who then withdraws, will be considered to have taken the course. In case of repeated failure, the student will be advised to withdraw from the nursing program.

4. To insure preparation of a safe practitioner, any student who fails to make satisfactory progress in either the theoretical or clinical portion of a nursing course will not be permitted to continue in the clinical area.

5. Students are evaluated in a specific time sequence in all clinical courses. Students will participate in this procedure which includes a written self-evaluation.

6. In determining the final grade in a clinical nursing course, both the theory and the clinical components will be evaluated on the basis of previously written criteria developed for each course.

7. Students must acquaint themselves and meet fully the University standards titled “Maintenance of Ethical and Professional Standards of the Nursing Profession.” These standards are published in the 1978/79 Student Handbook.

If in the judgment of an instructor there is reason to question the emotional or physical condition of a student or the safety or quality of nursing care provided, the instructor 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 nursing faculty on or before the next class day. The student will receive written notification of the faculty’s recommendation. Should the decision be unacceptable to the student, he/she may appeal to the department chairman, and thereafter in accordance with the University policy.

Nursing (B.S.N.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses, one from humanities, one from fine arts, and one from either <3 hours each)

Category C
2 approved behavioral or social science courses (6 hours; related courses below may apply)

Category D
2 approved mathematics or natural or applied science courses (6 hours; related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours) Related courses below may apply.

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
(2.25 average required for admission to the nursing major with no grade lower than C in any required prerequisite course)

12 hours behavioral sciences including:
Psychology 101, 221, Sociology 151, Anthropology 208.
21 hours mathematics, natural or applied science courses including:
Biology 191, 192, 193, 210
Chemistry 121, 122
2-3 hours mathematics
Mathematics 210
3 hours nutrition
Human Services 360
Nursing 202, 302, 303, 304, 310, 401, 402, 404, 407, 450
Electives to complete 128 hours

See page 175 for typical course of study in nursing.

199r Special Projects (1-4)
Individual or group projects. Maximum credit four hours.

202 Nursing Process (7) (Replaces 101, 200, and 201)
Theory and practice of basic nursing skills and interpersonal relationships with emphasis on utilizing the nursing process to meet human needs according to Maslow’s theory. The course focuses on commonalities of nursing care for individuals within the health-illness continuum. Lecture five hours, laboratory six hours. Prerequisites: approval of department admissions committee. Credit not given if Nursing 101, 200 and 201 were taken.

300 Pharmacology (3)
The mathematics of dosages and solutions relevant to administration of medications; an overview of pharmacology including drug classifications, action, use and nursing implications. Legislation pertinent to drug control is included.

302 Psycho-Social Nursing I (3)
Study of behavioral concepts and communication theory as applied to nursing practice. A supervised clinical practicum providing for the development of interpersonal skills and their application in a variety of nursing situations. Lecture two hours, laboratory three hours. Prerequisites: completion of sophomore year courses including 202.

303 Parent-Infant Care (6)
Course content is organized around biophysical and psycho-social concepts, principles and theories necessary for the care of individuals and families during the child-bearing cycle. The focus is on the normal reproductive sequence. Lecture three hours, laboratory nine hours. Prerequisites: completion of sophomore year courses including 202 and Psychology 221.

304 Junior Seminar (2)
Study of the development and contemporary form of nursing practice. Consideration is given to the role of education in developing and maintaining professional standards. Ethical and legal responsibilities of the individual are emphasized. Prerequisites: permission of department.

310 Adult and Child Care I (8)
Theory and clinical experience in care of children and adults at any stage of development. The nursing process is utilized in providing care for persons at any point on the health-illness continuum and in various settings. Lecture four hours, laboratory twelve hours. Prerequisites: 202, 302, 303.

401 Adult and Child Care II (8)
A continuation of 310 with clinical experience in various settings including critical care areas. Emphasis is placed on the application of basic concepts relevant to the leadership role in providing nursing care for a group of persons. Lecture four hours, laboratory twelve hours. Prerequisites: completion of junior nursing courses.

402 Family and Community Health (5)
Content and experiences with focus on health patterns, needs and problems of the individual and community. The family-centered approach is utilized in delivery of nursing care. Lecture two hours, laboratory nine hours. Prerequisite: completion of junior nursing courses and nursing 401.

404 Professional Seminar (2)
An inquiry into nursing as a profession with emphasis on the signifi-
cance of moral and legal factors as determiners of individual prac-
tice. Consideration is given to economic, demographic, political and
societal influences as they affect nursing and the practice of nursing
in a changing society. Prerequisite: completion of junior nursing
courses and/or permission of department.

407 Psycho-Social Nursing II (4)
Behavioral concepts and communication theory applied in nursing
situations dealing with more complex forms of human behavior. A
supervised clinical experience in individual and group interactions is
provided in psychiatric and community health settings. Prerequis-
tes: completion of junior and first semester senior nursing courses.

450 Guided Study in Professional Inquiry (3)
An independent study project investigating some aspect of nursing
in which the student has developed special interest; guided experi-
ence in acquiring basic knowledge and skills in research methodol-
gy. Prerequisite: completion of junior nursing courses.

460 Pathophysiology (3)
A study of selected principles of physiology, with special attention to
alterations due to the disease process. Prerequisites: completion of
junior level nursing courses and/or permission of department.

480 Physical Assessment (3)
A course in physical examination and medical history of patients of
any age presented in the context of nursing practice. Prerequisite:
completion of junior level courses and/or permission of department.

497r Research (1-4)

498r Individual Studies (1-4)

499r Group Studies (1-4)

Special Programs

Special Services/Upward Bound

Director Beasley
Instructional Coordinator Scruggs
Counseling Coordinator Appello
Tutor-Counselors Davis, Jelley
Laboratory Assistant Williams

The Special Services/Upward Bound Programs are
planned to help students from low-income homes to
achieve academic success.

The Upward Bound phase of the program is de-
dsigned for high school students in grades ten through
twelve. By providing both cultural and recreational
experiences in a university setting, the program at-
ttempts to stimulate their desire to continue academic
training. By providing academic experiences it seeks to
increase their chances for successful matriculation in
an institution of higher education.

The Special Services phase of the program is de-
dsigned for students who are enrolled at The University
of Tennessee at Chattanooga and who need assistance
in improving their basic academic skills. The program
serves individually and collectively in a variety of ways.

Tutorial/Assistance-Students may receive assistance
of writing, mathematics, and reading.

Group Instruction-Small, non-credit classes in English
or mathematics are set up when requested by par-
ticipating students to support their efforts in credit
courses in which they are enrolled.

Learning Laboratory-Using some programmed mate-
rinals and with the help of a supervisor, students may
improve their basic communication skills in a self-help
laboratory.

Counseling-The services of counselors are available to
help students identify and solve problems which hamper their progress whether the problems be per-
sonal, social, or strictly academic.
School of Engineering

Lynn D. Russell, Dean

Professors Koch, Russell
Associate Professors Carney, R. Cox
Assistant Professors James Cunningham, Flowers, Hilton, Johnson, Jones, Lovett, Schonblom, Thomason

The School of Engineering is the organizational unit of the University which is responsible for all engineering programs offered by the University. While administratively separate from the College of Arts and Sciences and the College of Professional Studies, the school cooperates with the units in providing various engineering educational opportunities to students at the University. An outline of the available engineering programs is given in the following. The faculty listed below support all of the engineering programs offered by the University.

Bachelor of Science in Engineering (B.S.E.) Program

The engineering curriculum provides a four year program with emphasis on the fundamentals of engineering, mathematics, and science. Considerable attention is also given to supporting curricular content in the area of humanities and social sciences.

Integrated throughout the engineering curriculum is a significant amount of engineering design. The engineering design experiences begin with freshman team design projects and are continued throughout the curriculum. Particular attention is given to the systems aspects of engineering design problems. An introductory engineering design course is provided during the junior year which introduces the student to the characterization of engineering design as a decision process with objectives, constraints, models, and appropriate optimization techniques. Following this course, all students take an engineering design course in a specific area during their senior year which provides for the application of engineering design techniques to specific problems in their particular area of interest. The design experiences are culminated by a year-long team design project for all students during their senior year.

Since engineering functions are increasingly dependent upon computers, the study of the computer and its utilization is integrated throughout the curriculum. The study of the computer begins with a course during the first semester of the freshman year in engineering computations. Another course follows during the sophomore year. These two courses provide the background for the utilization of the computer throughout the remainder of the engineering program.

Appropriate laboratory experiences with new and modern laboratory equipment and facilities are included in the program of each student.

A variety of elective courses for the senior year is also provided for students so that they may prepare for a career or graduate study in several fields of engineering. These elective courses are taken as a package with an orientation toward a field of engineering which the student wishes to pursue after graduation.

Specific areas of concentration which are available in the engineering curriculum are electrical engineering, industrial engineering, mechanical engineering and chemical sciences.

A more detailed discussion of objectives, curricula, and other aspects of the engineering program is offered in "Engineering at The University of Tennessee at Chattanooga," published yearly by the UTC School of Engineering.

Degree Requirements: B.S.E. Program

Engineering (B.S.E.)
General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral science courses (6 hours)

Category O
2 approved mathematics or natural or applied science courses other than Engineering (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity.

Major and related courses:
Mathematics 150, 160, 250, 260
Chemistry 121
Physics 231, 232
56 hours engineering core, including 100, 101, 102, 103, 104, 124, 225, 246, 248, 272, 303, 307, 322, 325, 340, 372, 373, 380, 400.
24 hours in specialized engineering area (subject to approval of advisor), including 8 hours in Engineering 490r.
134 total hours (144 for Co-op graduate).
See page 165 for typical course of study in engineering.
In addition to the basic four-year program a five-year optional cooperative 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 twenty 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 is in good academic standing, whose class work and school activities indicate that he or she is dependable and capable, and who is acceptable to a cooperating 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 2.0 quality point average (out of 4.0) to be enrolled in the program. Further he or she must maintain a 2.0 average to remain on the program. If a student is placed on academic probation while participating in the co-op program, his or her employer will be notified and the student will be terminated from the program if desired by the employer. In any case, two successive school terms are considered as continuous terms at UTC for determining academic suspension, probation, etc.

In general it is expected that co-op students will maintain a grade point average considerably above the 2.0 minimum.

(2) Registration - Co-op students are required to register each term (including each term in industry) as a co-op student. A nominal fee will be assessed the student for registration during the work term.

(3) Cooperative Seminar - A co-op student is expected to register and participate in Engineering 390R (Co-operative Seminar) during the term in school immediately following a work assignment. This seminar is especially designed to provide for discussing and reporting on projects conducted as a part of the cooperative work assignment.

(4) Reports - Student participants and employers are requested to file a brief statement with UTC 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, or summer term.)

(6) Co-op Graduate - A co-op student will be certified as a Co-op Graduate on his or her permanent record if he or she completes at least 75 weeks of co-op work experience.

A B.S.E. co-operative engineering graduate completes all degree requirements of the B.S.E. graduate listed above, plus additional hours in Engineering 390R, Co-operative Seminar, to total 144 semester hours for the B.S.E. co-op graduate degree.

The engineering management program is an interdisciplinary program leading to a Bachelor of Science (B.S.) degree. A computer concentration and a management concentration are available in this program.

The computer concentration is designed to prepare graduates for work with computers and information systems for technical management, while the management concentration is designed to prepare graduates for future careers in production, maintenance, sales and other business management functions. In both concentrations, a core of engineering, economics, and business administration courses is provided to give the graduate a broad introduction to engineering and management functions of industry and governmental organizations. These core courses are intended to provide graduates with background so that they can combine and integrate business and technical knowledge as preparation for careers in a society which is increasingly influenced by the computer and by scientific and technological developments.
Degree Requirements for Engineering Management Program

Engineering Management (B.S.)

General Education (see pages 27-29 for list of approved courses):

Category A
2 approved courses in written communication in the English language, at least one at the freshman level (6 hours)

Category B
3 approved courses: one from humanities, one from fine arts, and one from either (3 hours each)

Category C
2 approved behavioral or social science courses (6 hours; one course in Psychology recommended; approved related courses below may apply)

Category D
2 approved mathematics or natural or applied science courses other than engineering (6 hours; approved related courses below may apply)

Category E
1 approved interdisciplinary or non-western course (3 hours)

Health and Physical Education 021 plus one additional semester physical education activity

Major and related courses:
Mathematics through 160
Chemistry 121
Computer Science 121, 231
Economics 101, 102
Business Administration 201, 202, 211, 212, 311
Engineering 101, 102, 103, 104, 452, 457

4 hours of Engineering 490
Either Business Administration 302, 305, 315, Engineering 454 and six additional hours of engineering at the upper level or Computer science 122, 251, 280, 312, 435, Engineering 108 Electives to complete 128 hours.

See page 166 for typical program of study in engineering management.

100 Seminar (0) CORE
Professional, ethical, and technical aspects of engineering. Course graded on a satisfactory/no-credit basis.

101 Graphic Science (2) CORE
Multiview projection, sectional views, pictorial drawing, auxiliary views. Descriptive geometry, including points, lines and planes in auxiliary views. Laboratory six hours.

102 Graphic Design (2) CORE
One design project for each student, including fasteners, details, assembly specifications, essential material and labor cost. Involves creativity, customer esteem and use value of the project. Laboratory six hours. Prerequisite: 101.

103,104 Basic Engineering Science (4, 4) CORE
First semester: introduction to basic concepts of engineering. Physical quantities, units, dimensions, vectors; formulation of engineering problems. Fundamentals of mechanics with emphasis on statics; equilibrium conditions, free-body diagrams; center of mass, friction, kinematics of particle, work and energy. Second semester: fundamentals of first law of thermodynamics, basic heat transfer, elements of fluid mechanics, applications. Laboratory: a team design experience. Lecture three hours, laboratory three hours. Corequisite: Mathematics 150, 160.

107 Man-Made World (3)
The interaction between society and modern science and technology. Examination of the systems approach to decision-making and study of selected policies that lead to optimal decisions for important classes of problems, such as transportation and resource management. Examples of recent work in worker-machine integration. Lecture two hours, laboratory two hours.

124 Introduction to Engineering Computations (2) CORE
Flow diagram representation of processes. Construction of computation algorithms for computer solution. Experience in solution of typical engineering problems by digital computer. Lecture two hours or self-paced laboratory four hours.

225 Engineering Computations and Numerical Techniques (3) CORE
Application of the FORTRAN programming language to the solution of representative engineering problems by the digital computer. Experience in program design, implementation and documentation. Applications of numerical techniques to integration, solution of sets of equations, differential equations and optimization. Lecture three hours. Prerequisite: Engineering 124; corequisite: Mathematics 250.

246 Mechanics (4) CORE
Review of statics, vectors, plane moments of inertia and strain analysis. Stress-strain concepts and relations. Bending, shear and torsion, Euler columns. Particle kinematics. Introduction to material and structural testing techniques, subsequent team design projects with experimental verification in laboratory. Lecture three hours, laboratory three hours. Prerequisites: 102, 104.

248 Dynamics (4) CORE
Rectilinear, curvilinear and rotary motion. D'Alembert's principles of work and energy. Impulse and momentum, impact. Lecture two hours. Prerequisites: Engineering 246, Mathematics 250.

272 Electrical Networks (4) CORE
An introduction to the theory of circuit analysis including the definition of fundamental parameters, network theorems, general (voltage and current variable) analysis techniques, transient solutions, steady-state solutions, complete solutions, a-c circuit analysis using complex algebra, three-phase networks, and linear network models. Lecture three hours, computation and laboratory period three hours. Prerequisite: Physics 231; corequisite: Mathematics 260.

303 Thermodynamics (4) CORE
Classical thermodynamics with emphasis on first and second laws of thermodynamics. Property relationships, chemical equilibrium and cycle analysis. Lecture four hours. Prerequisites: Engineering 104, Mathematics 250.

307 Fluid Mechanics (4) 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. Laboratories: pressure measurements; density measurements; property measurements; energy losses; wind tunnel studies; shock waves; open channel flow; pumps and turbines; pipe flow. Lecture
three hours, laboratory three hours. Prerequisites: Engineering 303; Mathematics 260.

311 Pollution Controls (3) Seminar on the interaction of science, technology, and the public in the problem of pollution control. Investigations of selected areas, first characterizing the problem from a biological and chemical viewpoint and subsequently exploring the available technology for control and the legal control structure. Includes a computer game where the interaction of the important forces in pollution control are studied by observing the effects of realistically constrained policy decisions on the quality of life in a simulated community. Prerequisite: junior standing.

322 Probability and Statistics for Engineering (3) CORE Introduction to probability and statistical methods with application to engineering problems. Basic statistical distributions; Simulation of stochastic processes. Elementary sampling, testing and estimation. Lecture three hours. Prerequisites: Engineering 124 and Mathematics 260.

325 Systems Dynamics (4) CORE Analytical models for dynamical physical systems with mechanical, electrical, fluid and thermal elements. Fourier and Laplace transforms. Response characteristics, analog and digital simulation. Lecture three hours, laboratory three hours. Prerequisite: Engineering 272, Mathematics 260, either Engineering 225 or Mathematics 308.


358 Manufacturing Processes (3) Fabrication and treatment of hot and cold forming of metals, welding, brazing, heat treatment of metals, lathe operations and thread cutting, milling machines, drilling, boring, and reaming machines, shapers and planers, gears and gear manufacturing, and inspection of materials. Lecture three hours. Primarily elective for B.S. in engineering management.

372 Electronics (4) CORE Fundamentals of electronic devices and circuits. Physical operation of electronic devices, models from a physical viewpoint, two-port representation, biasing methods, stability, frequency response, input and output impedance concepts, untuned amplifiers, rectifiers, regulators, digital devices and logic circuits. Laboratory: a design experience in electronics. Lecture three hours, laboratory three hours. Prerequisites: Engineering 272, 340, and Physics 232.

373 Linear Systems Analysis and Design (4) CORE Analysis and synthesis of controlled systems with feedback. Transfer functions and state space descriptions developed and related. Nyquist, Routh-Hurwitz, Bode and Root Locus criteria for study of stability. Analytic and digital computer techniques for compensation and synthesis of systems. Lecture four hours. Prerequisite: 325.

380 Introduction to Engineering Design (3) CORE Introduction to the design process in engineering. Problem definition and concept generation. Characterization of design as a decision process with objectives, constraints, a model and an appropriate optimization technique. Computer applications. Economic and managerial considerations. Lecture three hours. Prerequisites: completion of 36 hours in Engineering CORE, including Engineering 225.

390r Cooperative Seminar (1-5) Seminar for developing, discussing and reporting projects carried on as a portion of the cooperative work assignment. Written and oral report required. Maximum of 15 cumulative hours. Course graded on satisfactory/no-credit basis.

400 Seminar (0) CORE Professional, ethical, and technical aspects of engineering. Course graded on a satisfactory/no-credit basis.

405 Heat and Mass Transfer (4) Fundamental principles to heat, mass and momentum transfer; application to macroscopic systems. Special emphasis on heat transfer by conduction and convection; analogy between heat and mass transfer. Lecture four hours. Prerequisite: 307.

430 Thermal Engineering Design (3) Application of engineering design techniques to the design of thermal processes, including the special techniques required for cyclic systems. Discussion of case studies including heat exchanger networks, mechanical refrigeration, absorption refrigeration and steam generation. Individual or group design problems. Lecture three hours. Prerequisites: 307, 380.


432 Chemical Operations (3) Fundamental variables of chemical operations; generalized treatment of mass-transfer operations including separation processes. Multicomponent phase equilibria. Application of fundamental principles of chemical operations for systems with simultaneous heat, mass and momentum transfer. Lecture three hours. Prerequisite: 431.


446 Advanced Mechanics of Materials (3) Statically indeterminate structures; introduction to theory of elasticity; special topics in mechanics of materials. Lecture three hours. Prerequisites: Engineering 246, Mathematics 260.

448 Elementary Structural Matrix Methods (3) Review of matrix algebra and vectors; Development of member stiffness and flexibility matrices; assembly of structural stiffness and flexibility matrices. Lecture three hours. Prerequisites: Engineering 246, Mathematics 260.

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. Lecture three hours. Prerequisite: 380.

452 Engineering Economy (3) 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 three hours. Prerequisite: Mathematics 126 or 160.

453 Value Engineering (3) Application of value engineering techniques through an organized approach which consists of the following phases: information, specification, analysis, planning and execution; reporting and implementation. Lecture three hours. Primarily elective for B.S. in engineering management.

454 Work Measurement and Design (4) Techniques for analysis and improvement of work methods; principles of motion economy, process charts, development of standard data, job evaluation, work sampling; predetermined time systems, performance rating and wage incentive systems. Laboratory work included. Lecture four hours.

455 Industrial Safety Engineering (3) History, accident cost analysis, methods and techniques developed for reducing and preventing accidents in industry, motivating safety,
Graduate Engineering Programs

The Chattanooga graduate engineering program was initiated as the UC-UT resident graduate program in the fall of 1965. This pioneering cooperative venture between a public and a private institution provided opportunities for students to work toward a master's degree in engineering at The University of Tennessee through study on the University of Chattanooga campus. As a result of the merger between the two institutions in 1969, the program evolved into a cooperative effort between The University of Tennessee, Knoxville, and UTC with academic direction of the engineering program from UTK.

Courses in the Chattanooga graduate engineering program are open to all students who have been admitted to the graduate school of The University of Tennessee, Knoxville. The program provides courses for credit in masters and doctoral programs in chemical, civil, electrical, industrial, mechanical, metallurgical and nuclear engineering. A program leading to the Master of Science in engineering administration is also available. A student may complete the entire master's program at Chattanooga, if sufficient courses are offered to make this feasible. A doctoral student must spend at least three quarters of full-time study on the Knoxville campus.

Students in Chattanooga complete the same requirements which exist for students on the Knoxville campus. Although most M.S. programs require these, non-thesis M.S. programs are available in aerospace engineering, industrial engineering, mechanical engineering, engineering mechanics and engineering administration.

A student in the Chattanooga graduate engineering program may take both UTK and UTC courses if the courses are approved in advance by his or her advisor. For information, application and catalogs, write or call:

Dr. Lynn D. Russell, Director

Chattanooga Graduate Engineering Program
The University of Tennessee at Chattanooga
Chattanooga, Tennessee 37401
755-4121

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457 Quality Control (3)
Detailed study of theory and methods for the design and analysis of quality control systems. Product specifications, process control, acceptance inspection, other means of assurance. Laboratory work included. Lecture three hours. Prerequisite: Engineering 322 or Business Administration 211.

458 Industrial Plant Layout (3)
Types and techniques of plant layout; process flow charts in routing operations. Design and selection of equipment, materials handling, and plant service facilities. Each student develops a scaled layout of equipment and services of a specific product as a major project. Lecture three hours. Primarily elective for B.S. in engineering management.

470 Logic Design (3)
Design of combinational and sequential electric circuits. Circuit minimization, cubic representation. Karnaugh maps, Quine/ McClusky algorithm, circuit equivalence, synchronous circuits, flip-flops, shift registers, counters, memory circuits. Lecture two hours, laboratory two hours. Prerequisites: 372, 380.

471, 472 Electrical Energy Systems (4, 4)
A two course sequence in the concepts of electrical energy systems engineering. Rotating A.C. and D.C. machinery; power transformers; high energy transmission lines. Static load flow analysis; optimum dispatch; system control. Symmetrical faults; unbalanced system analysis; symmetrical components analysis; transient stability. Lecture three hours. Laboratory three hours. Prerequisite to 471: 373; corequisite to 471: 475.

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 and time-bandwidth relationships. Amplitude, frequency and pulse modulation techniques described and analyzed. Periodic sampling and the Nyquist sampling criterion. Lecture three hours. Prerequisites: 322, 325.

475 Electromagnetic Fields and Waves (3)
Elementary fields and waves, static electric and magnetic fields; potential and vector fields; Gauss' Law; Ampere's Law; line integrals; vector calculus methods; Biot-Savart Law; time varying electric and magnetic fields; Maxwell's equations. Lecture three hours. Prerequisites: Physics 232, Mathematics 260, Engineering 372.

490r Senior Design Experience (4)
A group design project. Solution to an engineering problem; oral and written presentation of progress and final results. To be registered twice for a total of eight hours. Prerequisite: 380 (except for engineering management majors) and senior standing; corequisite in first semester: 400; corequisite in second semester: 430, 440, 450, or 470.

491r Special Topics in Engineering (1-3)
Advanced treatment of a specialized area in engineering, varying from term to term. Prerequisite: approval of instructor and Dean.

495r Honors (1-4)
Maximum credit four hours.
## Engineering (B.S.E.)
### Group A Cooperative Program

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<th>Spring</th>
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| Second Year | | |
| Engineering 225 Engineering Computation 3 | Engineering 303 Thermodynamics 4 | **WORK** |
| Engineering 246 Mechanics 4 | Engineering 390 Co-op Seminar 3 | |
| Engineering 390 Co-op Seminar 3 | Math 260 Calculus IV 4 | |
| Math 250 Calculus II 4 | Elective Gen Ed Category A or C 3 | |
| Physics 231 Principles of Physics 4 | **18** | |

| Third Year | **WORK** | **WORK** |
| Engineering 322 Probability & Stat. 3 | Engineering 248 Dynamics 2 | |
| Engineering 325 Systems Dynamics 4 | Engineering 272 Electrical Networks 4 | |
| Engineering 340 Materials Science 3 | Engineering 307 Fluid Mechanics 4 | |
| Engineering 390 Co-op Seminar 3 | Engineering 390 Co-op Seminar 2 | |
| Elective Gen Ed Category B 3 | Physics 202 Principles of Physics 4 | |
| **16** | **16** | |

| Fourth Year | **WORK** | **WORK** |
| Engineering 400 Senior Ed Experience 4 | Engineering 372 Electronics 4 | |
| Engineering 490 Senior Ed Experience 4 | Engineering 380 Engineering Design 3 | |
| Elective Engineering 4 | Engineering 390 Co-op Seminar 3 | |
| Elective Engineering 3 | Elective General Ed Category C or A 3 | |
| Elective Engineering 3 | **17** | |
| Elective General Ed Category B 3 | **13** | |

| Fifth Year | | |
| Engineering 373 Linear Systems Analysis 4 | Engineering 373 Linear Systems Analysis 4 | |
| Elective Engineering 3 | Elective Engineering 3 | |
| Elective Engineering 3 | Elective Engineering 3 | |
| Elective Engineering 3 | Elective Engineering 3 | |
| Elective General Ed Category B 3 | Elective General Ed Category B 3 | |
| Elective General Ed Category B 3 | Elective General Ed Category B 3 | |
| Elective General Ed Category E 3 | **16** | |
## Engineering (B.S.E.)
### Croup B Co-operative Program

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Typical Courses of Study

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The UTC Library
American Studies (B.A.)

Below is a typical program of study for an American studies major. The specific courses, however, might vary from student to student since one’s area of concentration considerably affects course choices, especially for the junior and senior years.

Concentration in American History

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<tr>
<td>American Literature 213</td>
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<td>American History 203</td>
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<td>French 211</td>
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<td>Philosophy 360</td>
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<td>Education 301</td>
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<td>History 333</td>
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<td>Sociology 131</td>
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Biology (B.A.)

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Biology (Med-Tech) (B.S.)*

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Business Administration (B.S.)

The program for the first two years in business administration is the same for all concentrations and is designed to do two things: (1) Give the student a background in the basic disciplines and areas required to fulfill the general education requirements of the University and (2) prepare a foundation for the advanced courses in business administration to be taken during the junior and senior years.
First Semester
Freshman
Economics 101 3
Mathematics 125* 3
General Education
Category A 3
Health and Physical Education 021 1
General Education Categories** 3-8
13-18
Sophomore
Business Administration 201 .. 3
Business Administration 211 .. 3
General Education Categories 6-12
12-18
*If exempted, student may elect Mathematics 124 and 126.
**Six hours must be selected from Political Science 101, Psychology 101 or Sociology 151.

Areas of Concentration
Candidates for the B.S. degree in business administration may choose from five concentrations. In all instances, courses listed for a concentration are in addition to the courses required of all candidates for the B.S. degree in the first two years.

Business Administration (B.S.)
Accounting Concentration
First Semester
Junior
Business Administration 302 .. 3
Business Administration 303 .. 3
Business Administration 307 .. 3
Business Administration 311 .. 3
Business Administration 313 .. 3
15
Senior
Accounting Elective 3
Accounting Elective 3
Business Administration Elective 3
Elective 3
18
Accounting Electives (9-12 Hours)
Business Administration 306
Business Administration 309
Business Administration 401
Business Administration 407
Business Administration 408
Business Administration 409
A minimum of 54 hours of the total 128 must be taken at the 300-400 level.

Business Administration (B.S.)
Finance Concentration
First Semester
Junior
Business Administration 302 .. 3
Business Administration 305 .. 3
Business Administration 315 .. 3
Economics 301 3
Elective 3
15
Senior
Business Administration 284 .. 3
Business Administration 337
or Business Administration 422 .. 3
Business Administration 337
Business Administration 335 .. 3
Finance Elective 3
15
Finance Electives (any 9 hours)
Economics 304
Economics 306
Business Administration 284
Business Administration 305
Business Administration 336
Business Administration 337
Business Administration 356
Business Administration 403
Business Administration 424
A minimum of 54 hours of the total 128 must be taken at the 300-400 level.

Business Administration (B.S.)
General Management Concentration
First Semester
Junior
Business Administration 302 3
Business Administration 303 3
Business Administration 307 3
Business Administration 311 3
Business Administration 313 3
Economics 301 3
Elective 3
15
Senior
Business Administration 434 3
General Management Electives 3-9
Electives 6-9
18
Senior
Business Administration 434 3
General Management Electives 3-9
Electives 6-9
18
General Management Electives any (18 hours)
Business Administration 351
Business Administration 354
Business Administration 410
Business Administration 435
Business Administration 438
Business Administration 454
Business Administration 456
Business Administration 459
A minimum of 54 hours of the total 128 must be taken at the 300-400 level.
Business Administration (B.S.)  
Industrially Management Concentration

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<td>Electives 3-6</td>
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<td>15-18</td>
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Industrial Management Electives (any 9 hours)
Business Admin. 319
Business Admin. 332
Business Admin. 410
Business Admin. 434
Business Admin. 435
Business Admin. 454
Business Admin. 456
Economics 429
Engineering 452
Engineering 454
Engineering 455
Engineering 457

A minimum of 54 hours of the total 128 must be taken at the 300-400 level.

Business Administration (B.S.)  
Marketing Concentration

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<td>302</td>
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<td>311</td>
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<td>313</td>
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<td>335</td>
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<td><strong>Senior</strong></td>
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</table>

‘Either Business Administration 361 or 362 is required. The course not chosen to meet requirement may be taken as an elective.

Marketing Electives (any 6 hours)
Business Admin. 318
Business Admin. 319
Business Admin. 361
Business Admin. 362
Business Admin. 363
Business Admin. 364
Business Admin. 415
Business Admin. 417
A minimum of 54 hours of the total 128 must be taken at the 300-400 level.

---

Economics (B.A.)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
</tr>
<tr>
<td>Economics 101</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>3-4</td>
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<tr>
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<tr>
<td><em>Category A</em></td>
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<tr>
<td>Health and Physical Education 021</td>
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<td>General Education</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Mathematics 210</td>
<td>3</td>
</tr>
<tr>
<td>or Business Admin.</td>
<td>211*</td>
</tr>
<tr>
<td>211*</td>
<td>3</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>3</td>
</tr>
<tr>
<td>General Education and Electives</td>
<td>6-12</td>
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<tr>
<td><strong>Junior</strong></td>
<td></td>
</tr>
<tr>
<td>Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td>Electives 9-15</td>
<td>Electives 9-15</td>
</tr>
<tr>
<td>12-18</td>
<td>12-18</td>
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</table>

**Senior**

Economics Electives 6
General Education and Electives 6-12
12-18

‘Prerequisite to Business Administration 211 is Math 126.

---

Economics (B.S.)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
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</tr>
<tr>
<td>Economics 101</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics 125 or 140</td>
<td>3 or 4</td>
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<tr>
<td>Computer Science 100</td>
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</tr>
<tr>
<td>Health and Physical Education 021</td>
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<td>General Education</td>
<td>0-5</td>
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<tr>
<td><strong>Sophomore</strong></td>
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</tr>
<tr>
<td>Business Admin.</td>
<td>3</td>
</tr>
<tr>
<td>211*</td>
<td>3</td>
</tr>
<tr>
<td>General Education</td>
<td>Electives 3-9</td>
</tr>
<tr>
<td>12-18</td>
<td>12-18</td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
</tr>
<tr>
<td>Economics 324</td>
<td>3</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>9-15</td>
</tr>
<tr>
<td>12-18</td>
<td>12-18</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td></td>
</tr>
<tr>
<td>Economics Elective</td>
<td>3</td>
</tr>
<tr>
<td>General Education Electives</td>
<td>6</td>
</tr>
<tr>
<td>12-18</td>
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‘Students not eligible for Mathematics 125 or 140 must first take Mathematics 107. Students eligible to waive 140 may start in 150.
### Office Administration (B.S.)
#### (Office Management Concentration)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
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</tr>
<tr>
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<td>Category A</td>
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<tr>
<td>Mathematics 107*</td>
<td>Mathematics 125</td>
</tr>
<tr>
<td>Economics 101</td>
<td>Economics 102</td>
</tr>
<tr>
<td>Humanity elective</td>
<td>Fine Arts elective</td>
</tr>
<tr>
<td>Office Administration 121**</td>
<td>Computer Science 100</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>Human and Physical Education</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
</tr>
<tr>
<td>Mathematics 126</td>
<td>Business Administration 211</td>
</tr>
<tr>
<td>Business Administration 201</td>
<td>Business Administration 202</td>
</tr>
<tr>
<td>Office Administration 219</td>
<td>Humanities/Fine Arts</td>
</tr>
<tr>
<td>Electives</td>
<td>Behavioral/Social Science Elective</td>
</tr>
<tr>
<td>Behavioral/Social Science elective</td>
<td>Electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
</tr>
<tr>
<td>Business Administration 212</td>
<td>Office Administration 309</td>
</tr>
<tr>
<td>Business Administration 335</td>
<td>Office Administration 410</td>
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<tr>
<td>Business Administration 313</td>
<td>Business Administration 311</td>
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<tr>
<td>Electives</td>
<td>Electives</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td></td>
</tr>
<tr>
<td>Office Administration 400</td>
<td>Office Administration 460</td>
</tr>
<tr>
<td>Office Administration 450</td>
<td>Business Administration 440</td>
</tr>
<tr>
<td>Business Administration 315</td>
<td>Interdisciplinary Non-Western Elective</td>
</tr>
<tr>
<td>Business Administration 302</td>
<td>Electives</td>
</tr>
<tr>
<td>Electives</td>
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<td></td>
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</table>
| *ACT score must be 19 or greater in order to waive Mathematics 107. *Placement test required.

### Office Administration (2-Year Certificate)

The following is a typical program for an office administration major with a secretarial science concentration:

#### Office Administration (B.S.)
#### (Secretarial Science Concentration)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
</tr>
<tr>
<td>General Education</td>
<td>General Education</td>
</tr>
<tr>
<td>Category A</td>
<td>Category A</td>
</tr>
<tr>
<td>Economics 101</td>
<td>Economics 102</td>
</tr>
<tr>
<td>Mathematics 107*</td>
<td>Mathematics 125</td>
</tr>
<tr>
<td>Humanities elective</td>
<td>Fine Arts elective</td>
</tr>
<tr>
<td>Office Administration 125</td>
<td>Office Administration 227</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>Health and Physical Education</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
</tr>
<tr>
<td>Mathematics 126</td>
<td>Business Administration 211</td>
</tr>
<tr>
<td>Office Administration 228</td>
<td>Business Administration 202</td>
</tr>
<tr>
<td>Office Administration 121**</td>
<td>Computer Science 100</td>
</tr>
<tr>
<td>Behavioral/Social Science elective</td>
<td>Humanities/Fine Arts</td>
</tr>
<tr>
<td>Elective</td>
<td>Office Administration 223</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Second Semester</strong></td>
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</tr>
<tr>
<td>Business Administration 219</td>
<td>Business Administration 211</td>
</tr>
<tr>
<td>Office Administration 229</td>
<td>Business Administration 202</td>
</tr>
<tr>
<td>Behavioral/Social Science elective</td>
<td>Computer Science 100</td>
</tr>
<tr>
<td>Mathematics 160</td>
<td>Mathematics 125</td>
</tr>
<tr>
<td>Physics 103</td>
<td>Physics 103</td>
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<tr>
<td></td>
<td>Elective</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
</tr>
<tr>
<td>Business Administration 212</td>
<td>Office Administration 309</td>
</tr>
<tr>
<td>Office Administration 219</td>
<td>Business Administration 335</td>
</tr>
<tr>
<td>Office Administration 229</td>
<td>Business Administration 313</td>
</tr>
<tr>
<td>Behavioral/Social Science elective</td>
<td>Business Administration 311</td>
</tr>
<tr>
<td>Mathematics 160</td>
<td>Electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td></td>
</tr>
<tr>
<td>Business Administration 400</td>
<td>Office Administration 440</td>
</tr>
<tr>
<td>Office Administration 450</td>
<td>Interdisciplinary Non-Western Elective</td>
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<tr>
<td>Business Administration 315</td>
<td>Electives</td>
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<td>Business Administration 302</td>
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<tr>
<td>Electives</td>
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<tr>
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</tr>
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</table>
| *ACT score must be 19 or greater in order to waive Mathematics 107. *Placement test required.

The following is a typical program for an office administration certificate curriculum guide to follow:

#### Office Administration (2-Year Certificate)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
</tr>
<tr>
<td>General Education</td>
<td>General Education</td>
</tr>
<tr>
<td>Category A</td>
<td>Category A</td>
</tr>
<tr>
<td>Economics 101</td>
<td>Economics 102</td>
</tr>
<tr>
<td>Mathematics 107*</td>
<td>Mathematics 125</td>
</tr>
<tr>
<td>Humanities elective</td>
<td>Fine Arts elective</td>
</tr>
<tr>
<td>Office Administration 125</td>
<td>Office Administration 227</td>
</tr>
<tr>
<td>Health and Physical Education</td>
<td>Health and Physical Education</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
</tr>
<tr>
<td>Mathematics 126</td>
<td>Business Administration 211</td>
</tr>
<tr>
<td>Office Administration 228</td>
<td>Business Administration 202</td>
</tr>
<tr>
<td>Office Administration 121**</td>
<td>Computer Science 100</td>
</tr>
<tr>
<td>Behavioral/Social Science elective</td>
<td>Humanities/Fine Arts</td>
</tr>
<tr>
<td>Elective</td>
<td>Office Administration 223</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
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<tr>
<td></td>
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</tr>
<tr>
<td><strong>Second Semester</strong></td>
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</tr>
<tr>
<td>Business Administration 219</td>
<td>Business Administration 335</td>
</tr>
<tr>
<td>Office Administration 229</td>
<td>Business Administration 313</td>
</tr>
<tr>
<td>Behavioral/Social Science elective</td>
<td>Business Administration 311</td>
</tr>
<tr>
<td>Mathematics 160</td>
<td>Electives</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
</tr>
<tr>
<td>Business Administration 400</td>
<td>Office Administration 440</td>
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<tr>
<td>Office Administration 450</td>
<td>Interdisciplinary Non-Western Elective</td>
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<tr>
<td>Business Administration 315</td>
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<td>Business Administration 302</td>
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<tr>
<td>Electives</td>
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<td></td>
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</tr>
</tbody>
</table>
| *ACT score must be 19 or greater in order to waive Mathematics 107. *Placement test required.

The following is a typical program for an office administration certificate curriculum guide to follow:

#### Chemistry (B.A.)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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<tbody>
<tr>
<td><strong>Freshman</strong></td>
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</tr>
<tr>
<td>General Education</td>
<td>General Education</td>
</tr>
<tr>
<td>Category A</td>
<td>Category A</td>
</tr>
<tr>
<td>Economics 101</td>
<td>Economics 102</td>
</tr>
<tr>
<td>Mathematics 107*</td>
<td>Mathematics 125</td>
</tr>
<tr>
<td>Humanities elective</td>
<td>Fine Arts elective</td>
</tr>
<tr>
<td>Office Administration 125</td>
<td>Office Administration 227</td>
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<tr>
<td>Health and Physical Education</td>
<td>Health and Physical Education</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
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</tr>
<tr>
<td>Mathematics 126</td>
<td>Business Administration 211</td>
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<td>Chemistry 241</td>
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<td>Computer Science 100</td>
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<tr>
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<td>Mathematics 125</td>
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<td>Physics 103</td>
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<tr>
<td><strong>Second Semester</strong></td>
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<td>Business Administration 219</td>
<td>Business Administration 335</td>
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<td>Office Administration 229</td>
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<tr>
<td>Behavioral/Social Science elective</td>
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<tr>
<td>Mathematics 160</td>
<td>Electives</td>
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<td></td>
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</tr>
<tr>
<td><strong>Junior</strong></td>
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</tr>
<tr>
<td>Business Administration 400</td>
<td>Office Administration 440</td>
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<tr>
<td>Office Administration 450</td>
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<tr>
<td>Business Administration 315</td>
<td>Electives</td>
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<tr>
<td>Business Administration 302</td>
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<tr>
<td>Electives</td>
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Computer Science (Technical)

<table>
<thead>
<tr>
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<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
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</tr>
<tr>
<td>Computer Science 100*</td>
<td>Computer Science 121</td>
</tr>
<tr>
<td>Computer Science 101</td>
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<td>Economics 101</td>
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<tr>
<td>Mathematics 140</td>
<td>Mathematics 150</td>
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<tr>
<td><strong>Sophomore</strong></td>
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</tr>
<tr>
<td>Computer Science 301</td>
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<td>Business Administration 211</td>
<td>Business Administration 212</td>
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<tr>
<td>Mathematics 160</td>
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<td>‘Desirable’</td>
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</table>

Criminal Justice (B.S.)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>‘CJP 101’</td>
<td>*CJP 112</td>
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<td>Psychology 101</td>
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<td>General Education Category A</td>
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<tr>
<td>General Education Category C</td>
<td>General Education Category C</td>
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<tr>
<td>Health and Physical Education 021</td>
<td>Health and Physical Education Activity 021</td>
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<tr>
<td>General Education Category B</td>
<td>American History</td>
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<td>American History</td>
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<tr>
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<td>Criminal Justice 301</td>
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<tr>
<td>Criminal Justice Concentration (2)</td>
<td>General Education Category B-</td>
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<tr>
<td>Criminal Justice Concentration (3)</td>
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<td>General Education Category D</td>
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<td>Math 210, Statistics</td>
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<tr>
<td>*Electives</td>
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<tr>
<td><strong>Junior</strong></td>
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</tr>
<tr>
<td>Criminal Justice Concentration (1)</td>
<td>Criminal Justice Concentration (1)</td>
</tr>
<tr>
<td>Criminal Justice Concentration (2)</td>
<td>Criminal Justice Concentration (2)</td>
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<td>General Education Category E</td>
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<td>Sociology 314</td>
<td>3</td>
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<td>*Electives</td>
<td>3</td>
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<td><strong>Senior</strong></td>
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</tr>
<tr>
<td>Criminal Justice Internship</td>
<td>Criminal Justice Concentration (1 &amp; 2)</td>
</tr>
<tr>
<td>Criminal Justice Concentration (1)</td>
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</tr>
<tr>
<td>*Electives</td>
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Computer Science Certificate (Business)

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
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</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
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</tr>
<tr>
<td>Computer Science 100**</td>
<td>Computer Science 121</td>
</tr>
<tr>
<td>Computer Science 101</td>
<td>Computer Science 201</td>
</tr>
<tr>
<td>Mathematics 125</td>
<td>Mathematics 126</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
</tr>
<tr>
<td>Computer Science 301</td>
<td>Computer Science 350</td>
</tr>
<tr>
<td>Business Administration 201*</td>
<td>Business Administration 211</td>
</tr>
<tr>
<td>Business Administration 202*</td>
<td></td>
</tr>
<tr>
<td>*Two electives to be chosen from Business Administration 201,202,212, 303, 305, 306, 356, Computer Science 231 or Economics 101,102.</td>
<td>*CJP-Cleveland State criminal justice consortium courses</td>
</tr>
<tr>
<td><strong>Desirable</strong></td>
<td>*Electives may be taken from any academic program.</td>
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</table>
### Art Education (B.S.)

#### First Semester

<table>
<thead>
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<th>Category</th>
<th>Course Code</th>
<th>Credits</th>
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<tr>
<td>Science Elective 021</td>
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<tr>
<td>Physical Education Activity 105</td>
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</table>

#### Second Semester

<table>
<thead>
<tr>
<th>Category</th>
<th>Course Code</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Science Elective 021</td>
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</tr>
<tr>
<td>Physical Education Activity 106</td>
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</table>

### Sophomore

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Humanities/Fine Arts Elective</td>
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#### Junior

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<td>Art 333</td>
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<td>Art 303 or 305 or 309 or 343</td>
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#### Senior

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<td>Education 431</td>
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### Early Childhood Education (B.S.)

#### First Semester

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<tbody>
<tr>
<td>General Education</td>
<td>Category A</td>
</tr>
<tr>
<td>Science Elective</td>
<td>4</td>
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<tr>
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<td>3</td>
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<td>Humanities/Fine Arts Elective</td>
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#### Second Semester

<table>
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<td>3</td>
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<tr>
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### Elementary Education (B.S.)

#### First Semester

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<td>Science Elective</td>
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<tr>
<td>Mathematics 115</td>
<td>3</td>
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<tr>
<td>Physical Education 021</td>
<td>1</td>
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#### Second Semester

<table>
<thead>
<tr>
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<tr>
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<tr>
<td>Education 102</td>
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### Sophomore

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<tbody>
<tr>
<td>English 228</td>
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<td>Art 222</td>
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<tr>
<td>Mathematics 116</td>
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#### Junior

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<tr>
<td>Apply for Student Teaching</td>
<td>Health Education 302</td>
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<tr>
<td>Music 321</td>
<td>3</td>
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<tr>
<td>Physical Education 330</td>
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<td>Social Science Elective</td>
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<tr>
<td>Physical Education Activity</td>
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<td>Elective</td>
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#### Senior

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<td>Education 404</td>
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<tr>
<td>Education 405</td>
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The text above represents the course offerings and credit requirements for the Art, Elementary, and Early Childhood Education programs at a university. Each semester is divided into categories, including General Education, Core Courses, and Electives.
### Secondary Education: Biology (B.S.)

#### First Semester  
**General Education**  
- Category A: 3  
- Humanities Elective: 3  
- Biology 121: 4  
- Physics 103 or Geology 111: 4  
- Physical Education 021: 1  
- **Total: 15**

#### Second Semester  
**General Education**  
- Category A: 3  
- Fine Arts Elective: 3  
- **Total: 15**

#### Sophomore  
**Mathematics 125 or 140:** 3-4  
**Chemistry 121:** 4  
**Education 102:** 2  
**Biology (Organismic):** 3-4  
**Behavioral Science Elective:** 3  
**Electives (Comp. Sci. 100 or 121):** 15-17  
- **Total:** 16-18

#### Junior  
**Apply for Student Teaching:**  
- Biology (Population Interaction): 3-4  
- Chemistry 351: 4  
**Behavioral Science Elective:** 3  
**Education 207:** 3  
**Electives:** 6  
- **Total:** 15  
- **Total:** 16-17

#### Senior  
**Education 430:** 3  
**Education 431:** 6  
**Education 438:** 6  
- **Total:** 15  
- **Total:** 16-17

### Secondary Education: Chemistry (B.S.)

#### First Semester  
**General Education**  
- Category A: 3  
- Humanities Elective: 3  
- Physics 103: 4  
- Education 102: 4  
- Physical Education 021: 1  
- **Total: 15**

#### Second Semester  
**General Education**  
- Category A: 3  
- Fine Arts Elective: 3  
- Chemistry 122/Geology 112: 4  
- Chemistry 351: 4  
- **Total: 15**

#### Sophomore  
**Mathematics 140:** 4  
**Chemistry 241:** 4  
**Biology 121/Geology 111:** 4  
**Education 102:** 2  
**Behavioral Science Elective:** 3  
- **Total:** 17

#### Junior  
**Apply for Student Teaching:**  
- Mathematics 352: 4  
**Chemistry 160:** 4  
**Education 207:** 3  
**Behavioral Science Elective:** 3  
**Electives:** 6  
- **Total:** 16

#### Senior  
**Education 430:** 3  
**Education 431:** 6  
**Education 438:** 6  
- **Total:** 15

### Secondary Education: Business (B.S.)

#### First Semester  
**General Education**  
- Category A: 3  
- Mathematics 115: 3  
- Science Elective: 4  
- Humanities/Fine Arts Elective: 3  
- Physical Education 021: 1  
- Office Administration 109: 3  
- **Total:** 17

#### Second Semester  
**General Education**  
- Category A: 3  
- Education 102: 2  
- Science Elective: 4  
- Economics 101: 3  
- Physical Education Activity 1  
- Office Administration 121: 3  
- **Total:** 16

#### Sophomore  
**Office Administration 223:** 3  
**Education 204:** 3  
**Humanities/Fine Arts Elective:** 3  
**Office Administration 125:** 3  
**Office Administration 219:** 3  
**Elective 103:** 3  
- **Total:** 18

#### Junior  
**Apply for Student Teaching:**  
- Office Administration 228: 3  
- Business Administration 335: 3  
- Education 301: 3  
- Social Science Elective: 3  
- Business Administration 202: 3  
- **Total:** 15

#### Senior  
**Education 430:** 3  
**Education 431:** 6  
**Education 438:** 6  
- **Total:** 15

### Secondary Education: Earth and Space Science (B.S.)

#### First Semester  
**General Education**  
- Category A: 3  
- Humanities Elective: 3  
- Geography 101: 3  
- Biology 121/or Physics or Chemistry: 4  
- Physical Education 021: 1  
- **Total:** 14

#### Second Semester  
**General Education**  
- Category A: 3  
- Fine Arts Elective: 3  
- Geology 111: 4  
- Biology 122/or Physical Education Activity: 1  
- **Total:** 15

#### Sophomore  
**Office Administration 229:** 3  
**Office Administration 220:** 3  
**Elective:** 3  
- **Total:** 16

#### Junior  
**Office Administration 228:** 3  
**Business Administration 335:** 3  
**Education 301:** 3  
**Social Science Elective:** 3  
**Business Administration 202:** 3  
- **Total:** 15

#### Senior  
**Apply for Admission to TEP:**  
- Geology elective: 3  
- Education 102: 3  
- Behavioral Science Elective: 3  
- Biology/or Physics 103/or Chemistry 121: 3  
- **Total:** 16

- **Category A:**
  - Mathematics 126 or 150: 3-4
  - Chemistry 241: 4
  - Education 122: 4
  - Education 204: 3
  - Education 301: 3
  - Education 207: 3
  - Education 301: 3
  - Education 325: 3
  - Education 201: 3
  - Education 219: 3
  - Education 227: 3
  - Office Administration 131: 3
  - Office Administration 125: 3
  - Office Administration 219: 3
  - Elective 103: 3
  - **Total:** 15

- **Category B:**
  - Mathematics 126 or 150: 3-4
  - Chemistry 241: 4
  - Education 122: 4
  - Education 204: 3
  - Education 301: 3
  - Education 325: 3
  - Education 201: 3
  - Education 219: 3
  - Office Administration 131: 3
  - Office Administration 125: 3
  - Office Administration 219: 3
  - Elective 103: 3
  - **Total:** 15
### Secondary Education: Economics (B.S.)

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<td>General Education Category A 3</td>
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<td>Mathematics 115 3</td>
<td>Education 102 2</td>
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<tr>
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<td>Physical Education 021 1</td>
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### Secondary Education: Foreign Language (B.S.)

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<td>French 300 elective 3</td>
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162
**SECONDARY EDUCATION: HISTORY (B.S.)**

### Freshman

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### Sophomore

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<tr>
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<td><strong>Humanities/Fine Arts Elective</strong></td>
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### Junior

<table>
<thead>
<tr>
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<tbody>
<tr>
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</tr>
<tr>
<td><strong>Education 304</strong></td>
<td>3</td>
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<tr>
<td><strong>Home Economics 303</strong></td>
<td>3</td>
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<tr>
<td><strong>Education 207</strong></td>
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<tr>
<td><strong>Mathematics 115</strong></td>
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<tr>
<td><strong>Home Economics Elective</strong></td>
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### Senior

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<td><strong>Education 438</strong></td>
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**SECONDARY EDUCATION: HOME ECONOMICS (B.S.)**

### Freshman

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### Sophomore

<table>
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<tbody>
<tr>
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<td><strong>Elective</strong></td>
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### Junior

<table>
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<tbody>
<tr>
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</tr>
<tr>
<td><strong>Education 438</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Elective</strong></td>
<td>3</td>
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<td><strong>Total</strong></td>
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### Senior

<table>
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### Secondary Education: Physics (B.S.)

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### Secondary Education: Psychology (B.S.)

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### Secondary Education: Sociology (B.S.)

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<td>C</td>
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</tr>
<tr>
<td>D</td>
<td>15</td>
</tr>
<tr>
<td>E</td>
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**Freshman**
- General Education: 3 credits
- Category A: 3 credits
- Mathematics 115: 3 credits
- Physical Education Activity: 1 credit
- Behavioral Science elective: 3 credits
- Science Elective: 4 credits
- Physical Science 200 Elective: 3 credits
- Social Science Elective: 3 credits
- Political Science 300 Elective: 3 credits
- Political Science 400 Elective: 3 credits

**Sophomore**
- General Education: 3 credits
- Category A: 3 credits
- Mathematics 115: 3 credits
- Political Science 200 Elective: 3 credits
- Physical Education Activity: 4 credits
- Behavioral Science elective: 3 credits
- Science Elective: 3 credits
- Political Science 300 Elective: 3 credits
- Political Science 400 Elective: 3 credits

**Junior**
- General Education: 3 credits
- Category A: 3 credits
- Mathematics 115: 3 credits
- Physical Education Activity: 4 credits
- Behavioral Science elective: 3 credits
- Science Elective: 3 credits
- Political Science 200 Elective: 3 credits
- Political Science 400 Elective: 3 credits

**Senior**
- General Education: 3 credits
- Category A: 3 credits
- Mathematics 115: 3 credits
- Political Science 200 Elective: 3 credits
- Physical Education Activity: 4 credits
- Behavioral Science elective: 3 credits
- Science Elective: 3 credits
- Political Science 300 Elective: 3 credits
- Political Science 400 Elective: 3 credits

---

**Apply for Admission to TEP**
- Humanities/Fine Arts Elective: 3 credits
- Education 204: 3 credits
- Interdisciplinary/Non-Western: 3 credits
- Psychology Elective: 3 credits
- Education 430: 3 credits
- Education 431: 3 credits
- Education 438: 6 credits
- Sociology 151: 3 credits
- Anthropology 152 or 208: 3 credits

---

**Admission to Teacher Education Program**
- Mathematics 150: 4 credits
- Education 204: 3 credits
- Humanities/Fine Arts elective: 3 credits
- Chemistry 122: 4 credits

---

**Admission to TEP**
- Humanities/Fine Arts Elective: 3 credits
- Education 204: 3 credits
- Interdisciplinary/Non-Western: 3 credits
- Psychology Elective: 3 credits
- Education 430: 3 credits
- Education 431: 3 credits
- Education 438: 6 credits
- Sociology 151: 3 credits
- Anthropology 152 or 208: 3 credits

---

**Apply for Student Teaching**
- Education 207: 3 credits
- Sociology Elective: 3 credits
- Psychology Elective: 3 credits
- Education 204: 3 credits
- Interdisciplinary/Non-Western: 3 credits
- Psychology 331: 3 credits
- Education 430: 3 credits
- Education 431: 3 credits
- Education 438: 6 credits
- Sociology 151: 3 credits
- Anthropology 152 or 208: 3 credits

---

**Admission to Teacher Education Program**
- Mathematics 150: 4 credits
- Education 204: 3 credits
- Humanities/Fine Arts elective: 3 credits
- Chemistry 122: 4 credits

---

**Apply for Admission to TEP**
- Humanities/Fine Arts Elective: 3 credits
- Education 204: 3 credits
- Interdisciplinary/Non-Western: 3 credits
- Psychology Elective: 3 credits
- Education 430: 3 credits
- Education 431: 3 credits
- Education 438: 6 credits
- Sociology 151: 3 credits
- Anthropology 152 or 208: 3 credits

---

**Admission to Teacher Education Program**
- Mathematics 150: 4 credits
- Education 204: 3 credits
- Humanities/Fine Arts elective: 3 credits
- Chemistry 122: 4 credits

---

**Apply for Admission to TEP**
- Humanities/Fine Arts Elective: 3 credits
- Education 204: 3 credits
- Interdisciplinary/Non-Western: 3 credits
- Psychology Elective: 3 credits
- Education 430: 3 credits
- Education 431: 3 credits
- Education 438: 6 credits
- Sociology 151: 3 credits
- Anthropology 152 or 208: 3 credits

---

**Admission to Teacher Education Program**
- Mathematics 150: 4 credits
- Education 204: 3 credits
- Humanities/Fine Arts elective: 3 credits
- Chemistry 122: 4 credits

---

**Apply for Admission to TEP**
- Humanities/Fine Arts Elective: 3 credits
- Education 204: 3 credits
- Interdisciplinary/Non-Western: 3 credits
- Psychology Elective: 3 credits
- Education 430: 3 credits
- Education 431: 3 credits
- Education 438: 6 credits
- Sociology 151: 3 credits
- Anthropology 152 or 208: 3 credits

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**Admission to Teacher Education Program**
- Mathematics 150: 4 credits
- Education 204: 3 credits
- Humanities/Fine Arts elective: 3 credits
- Chemistry 122: 4 credits

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**Apply for Admission to TEP**
- Humanities/Fine Arts Elective: 3 credits
- Education 204: 3 credits
- Interdisciplinary/Non-Western: 3 credits
- Psychology Elective: 3 credits
- Education 430: 3 credits
- Education 431: 3 credits
- Education 438: 6 credits
- Sociology 151: 3 credits
- Anthropology 152 or 208: 3 credits

---

**Admission to Teacher Education Program**
- Mathematics 150: 4 credits
- Education 204: 3 credits
- Humanities/Fine Arts elective: 3 credits
- Chemistry 122: 4 credits
### Engineering (B.S.E.)

In general all engineering students take a common core of courses during their first three years, and then take courses in their area of specialization during their fourth year. The typical first three years for all students are listed below, followed by the typical fourth year for students in each of the areas of specialization.

*All students should check with advisor to see if they are eligible for Mathematics 150. If they are not eligible for Mathematics 150, they should consult with the School of Engineering to determine which courses to take.*

<table>
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<th>Area of Specialization</th>
<th>First Semester</th>
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<tbody>
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<td>Engineering 473</td>
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<td>Engineering 490r Senior Design Experience</td>
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Mechanical Engineering

Senior (Mechanics)
Engineering 400 Seminar 0  
Engineering 405 Advanced Mechanics of Materials 3  
Engineering 446 Heat and Mass Transfer 4  
Engineering Elective 3  
Engineering 490r Senior Design Experience 4  

General Education Category B & E  
Engineering 440 Structural Engineering Design  
Engineering 448 Structural Matrix Methods  
Engineering 490r Senior Design Experience  

Senior (Thermal Sciences)
Engineering 400 Seminar 6  
Engineering 405 Heat and Mass Transfer 3  
Engineering 431 Chemical Process Principles 3  
Engineering Elective 3  
Engineering 490r Senior Design Experience 4  

General Education Category B and C  
Engineering 430 Thermal Engineering Design 3  
Engineering 432 Chemical Process Principles 3  
Engineering 490r Senior Design Experience 4  

Chemical Sciences
Students in this area generally vary from the engineering core for the first three years by taking Chemistry 121, 122 during the freshman year, Chemistry 245, 252 during the sophomore year, and Chemistry 371, 372 during their junior year. The additional chemistry courses are usually taken in lieu of Engineering 246, 248 and Physics 232. Thus these students must consult their advisors at the beginning of their freshman year in order to give consideration to prerequisites and program integration.

Senior (Chemical Sciences)
Engineering 400 Seminar 6  
Engineering 405 Heat and Mass Transfer 3  
Engineering 431 Chemical Process Principles 3  
Engineering 490r Senior Design Experience 4  

General Education Category B and C  
Engineering 430 Thermal Engineering Design 3  
Engineering 432 Chemical Process Principles 3  
Engineering 490r Senior Design Experience 4  

Career Preparation

For Other Fields
By careful selection of electives a student may prepare for one of a variety of fields in addition to those listed above. For example, students may prepare for what has traditionally been considered as the structural area of civil engineering by completing the core program and the electives in the mechanics area listed above, while other students may prepare for the emerging field of environmental engineering by completing the core program along with electives in environmental sciences. Other fields such as nuclear engineering are primarily areas of graduate specialization. By proper selection of electives in physics, mathematics, and engineering in consultation with an advisor, the student may prepare to enter such fields.

It is also possible to prepare to enter medical school or law school by proper selection of electives and perhaps by completion of some additional courses above the minimum requirements. Such a pre-medical or pre-law engineering program will provide an excellent background for the student who wishes to enter the medical or law profession with a better understanding of the expanding scientific and technological aspects of these fields.

For guidance and assistance concerning preparation for any particular field of interest, the student should contact the Dean of Engineering or an appropriate advisor.

In general all engineering management students take a common core of courses during their first two years, and then take courses during their last two years leading to either the computer concentration or the management concentration. The typical first two year core for all students is listed below, followed by the typical last two years for each of the two concentrations.

Engineering Management (B.S.) Engineering Management Core

First Semester  Second Semester

Freshman
General Education 3  
Category A 3  
Chemistry 121 4  
General Chemistry 4  
Chemistry 121 4  
Chemistry Lab 0  
Computer Science 121 3  
Engineering 101 2  
Mathematics 140 4  
Pre-Calculus 4  
Computer Problems in the Sciences 2  
Economics 101 3  
Principles of Economics 3  
Principles of Economics 3  
Health & Physical Education 1  
Activity Course 1  

Second Semester
General Education 3  
Category A 3  
Elective 3  
Mathematics 160 3  
Calculus II 3  
Business Administration 202 3  
Accounting 3  
General Education 3  
Category B 3  
Elective 3  

Sophomore
Engineering 103  
Basic Engineering Science  
Mathematics 150  
Calculus I  
Business Administration 201  
Accounting  
General Education 3  
Category D 3  
Elective 7  

First Semester  Second Semester

Junior
Business Administration 211 3  
Quantitative Methods I 3  
Computer Science 122 3  
Introduction to File Processing 3  
Computer Programming 3  
General Education 3  
Category D 3  
Electives 7  

Christian Studies 14  
Second Semester
Business Administration 212 3  
Quantitative Methods II 3  
Computer Science 251 3  
Engineering 108 3  
The Digital Computer 3  
General Education 3  
Category B 3  
Elective 3  

Computer Concentration

First Semester  Second Semester

Junior
Business Administration 211 3  
Quantitative Methods I 3  
Computer Science 122 3  
Introduction to File Processing 3  
Computer Programming 3  
General Education 3  
Category D 3  
Electives 7  

Christian Studies 14  
Second Semester
Business Administration 212 3  
Quantitative Methods II 3  
Computer Science 251 3  
Engineering 108 3  
The Digital Computer 3  
General Education 3  
Category B 3  
Elective 3  

166
## Computer Science 280
- Business Administration 311
- Operations Management 3
- Computer Science 280
- Accelerated Cobol 3
- Computer Science 312
- Data Structures 2
- Engineering 452
- Engineering Economy 3
- Engineering 490r
- Senior Design Experience 4

## Management Concentration

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## Environmental Studies (B.S.) (Chemistry Concentration)

### First Semester
- Environmental Studies 150 3
- Chemistry 121 4
- Biology 121 4
- General Education Category A 3
- General Education Category B 3

### Second Semester
- Economics 101 3
- Chemistry 122 4
- Biology 122 4
- General Education Category A 3
- General Education Category B 3

### Sophomore
- Mathematics 140 4
- Chemistry 241 4
- Biology 207 3
- Political Science 101 3
- Physical Education 021 1

### Junior
- Environmental Studies 360 3
- Mathematics 210 3
- Biology 225 or 342 4
- Biology 306 3
- General Education Category B 3

### Senior
- Environmental Studies 361 3
- Engineering 311 3
- Engineering 225 3
- General Education Category C 3

## Environmental Studies (B.S.) (Engineering Concentration)

### First Semester
- Engineering 103 4
- Math 150 4
- Chemistry 121 4
- General Education Category A 3
- Physical Education Activity 021 1

### Second Semester
- Engineering 104 4
- Mathematics 160 4
- Computer Science 121 4
- General Education Category A 3
- Physical Education Activity 1

### Sophomore
- Engineering 225 3
- Mathematics 250 4
- Physics 231 3
- General Education Category A 3
- General Education Category B 3

### Junior
- Engineering 303 4
- Engineering 307 4
- Economics 101 3
- General Education Category B 3
- Political Science 101 3

### Senior
- Environmental Studies 490 3
- Environment Studies 402 3
- Biology 304 4
- Electives 9
- Electives 16
### Environmental Sciences (B.S.)

#### (Physics Concentration)

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### Health and Physical Education (B.S.)

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**Note:** Mathematics 107 may be recommended to precede Mathematics 140, depending on preparation of the individual student.
### Health, Physical Education and Recreation

#### Recreation Specialist (B.S.)

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### Home Economics (General) (B.S.)

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### Home Economics (Business) (B.S.)

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Some of the electives should be chosen to complete the cognate course requirement for majors. Students should make certain they select enough electives to complete 128 hours.
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**Humanities (B.A.)**

Because each student follows a unique program of study, it is impossible to outline a typical curriculum. Hypothetically, however, supposing a student chose to focus his/her study on Medieval and Renaissance Europe, the course of study might look like this.
### Social Work (B.S.)

#### First Semester

**Freshman**
- General Education Category A 3
- General Education Category B Humanities 3
- Social Work 150 3
- Human Services 101 3
- General Education Category D Biology 121 4

**Sophomore**
- Elective 3
- General Education Category B Mathematics 195 3
- General Education Category D Physics 231 3
- Electives 6

#### Second Semester

- Political Science 101 3
- General Education Category A 3
- Social Work 205 3
- General Education Category C Sociology 151 3
- Health & Physical Education 021 1

- General Education Category B Economics 101 3
- General Education Category B Philosophy 221, 322 or 425 Elective 3
- English 300 Elective 3

#### Apply for Admission to the Social Work Major

**Junior**
- Social Work 301 3
- Sociology 305 3
- Home Economics 328 3
- Social Work 300 4
- Human Services 405 3

**Senior**
- Social Work 400 3
- Social Work 406 3
- Elective 3

#### File for Advanced Field and Methods

**Junior**
- Social Work 400 3
- Social Work 406 3
- Elective 3

**Senior**
- Social Work 400 3
- Social Work 406 3
- Elective 3

Any required course which meets general education requirements may be used to fulfill both the major requirements and general education requirements.

#### Mathematics (B.A.)

##### First Semester

<table>
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<tr>
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##### Second Semester

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(Mathematics 260 in summer school—if needed)

### Applied Mathematics (Actuarial Science Option) (B.S.)

#### First Semester

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#### Second Semester

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(Mathematics 260 in summer school—if needed)
**Applied Mathematics (Business Administration Option) (B.S.)**

### First Semester | Second Semester
---|---
**Freshman**
Mathematics 101 Category C | Economics 102 Category C
General Education | General Education
Category A | Category A
Mathematics 140 (150)* | Mathematics 150 (160)*
Economics 250 (260) | Computer Science 121
General Education | General Education
Category B | Category B
Business Administration 201 | Computer Science 251
Elective | Mathematics 308

18 | 18

*(Mathematics 260 in summer school-if needed)*

### Sophomore
Mathematics 160 (250) | 4
Mathematics 195 | 3
Computer Science 201 | 3
General Education | 3
Category B | 3
Computer Science 251 | 3
Mathematics 308 | 3

16 | 16

*(Mathematics 260 in summer school-if needed)*

### Junior
Mathematics 407 | 3
Mathematics 350 | 3
Mathematics elective | 3
Business Administration 302 | 3
Elective | 3

15 | 15

### Senior
Mathematics 414 | 3
Economics 420 | 3
Engineering 311 Category E | 3
Electives | 6

15 | 15

*(Mathematics sequence may begin with 150 rather than 140 depending on preparation.)*
### Junior

<table>
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**Total Credits:** 17

### Senior

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<tbody>
<tr>
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**Total Credits:** 13

### Music (B.A.)

#### First Semester

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**Total Credits:** 15-16

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**Total Credits:** 15

#### Second Semester

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**Total Credits:** 16

### Music (B.M.)

#### Instrumental Performance Emphasis

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<td>Music 107</td>
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**Total Credits:** 17

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**Total Credits:** 17

#### Sacred Music Emphasis

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**Total Credits:** 16

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**Total Credits:** 17-18

### Music (B.M.)

#### Sacred Music Emphasis

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<td>Music 107</td>
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**Total Credits:** 16

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**Total Credits:** 14-16
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<td>Music 315</td>
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### Senior

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### Music (B.M.)

#### Theory and Composition Emphasis

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#### Vocal Performance Emphasis

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*For composition majors.

For theory majors.
### Music Education* (Primary) (B.S.)

#### First Semester

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<tr>
<td>Ensemble</td>
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<tr>
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#### Second Semester

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### Music Education* (Vocal) (B.S.)

#### First Semester

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#### Second Semester

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### Senior

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### Nursing (B.S.N.)

#### First Semester

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<tbody>
<tr>
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<td>English 101</td>
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<tr>
<td>Mathematics</td>
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<td><strong>Health and Physical Education (021)</strong></td>
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<tr>
<td><strong>Sociology 151</strong></td>
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#### Second Semester

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<td>Mathematics</td>
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<td><strong>Sociology 151</strong></td>
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*Piano instruction for non-keyboard majors.
"For piano majors.
Psychology 101 3  
(Home Economics 105 or 305)  
Elective 3

SOPHOMORE

Biology 192, 193 4  
Psychology 101 3  
Biolog 210 3  
Nutrition 3  
(Home Economics 105 or 305)  
Elective 3

JUNIOR

Nursing 302 3  
Nursing 303 6  
Fine Arts 3  
Nursing 304 2

SENIOR

Nursing 401 8  
Nursing 460 3  
Humanities 3  
Nursing 404 2

Curriculum revision is in process: Some change in sequence and hours may occur. 
Revised and approved October 1977

•Cumulative GPA of 2.25 is required for admission to Nursing 202.

**Major requires 30 hours philosophy beyond the 100 level; including Philosophy 211, 351, 353, 498r, and one course in ethics, metaphysics, or epistemology. Not more than 42 hours in any one department may be applied toward a B.A. degree. One course outside the department may count toward major with approval by department head. 
***Correlative courses in religion should be considered as appropriate electives.

Philosophy and Religion (B.A.) 
Philosophy Concentration

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<thead>
<tr>
<th>First Semester</th>
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<td>Religion 103 or Philosophy 101*3</td>
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<td>Philosophy 102* 3</td>
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<td>Philosophy 341 or 345 3</td>
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Philosophy and Religion (B.A.) 
Religious Studies Concentration

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<td>Religion 103 or Philosophy 101*3</td>
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Philosophy and Religion (B.A.) 
Combined Concentration

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<td>Foreign Language 4</td>
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<tr>
<td>Religion 103 or Philosophy 101*3</td>
<td>Religion 103 or Philosophy 101*3</td>
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<td>General Education Category C 3</td>
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<tr>
<td>Elective 3</td>
<td>Elective 3</td>
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<tr>
<td>or Religion (200 level)** 3</td>
<td>or Religion (200 level)** 3</td>
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<table>
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<td>Philosophy 351 3</td>
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<tr>
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<td>Religion 337, 467, or 482 3</td>
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**Senior**

<table>
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*This course does not count toward major
*Major requires at least 15 hours in philosophy and 15 hours in religion including: Philosophy 351, 353, 498r; and Religion 355 or 362 and one course from 337, 467, or 482.
***Not more than 42 hours in any one department may be applied toward a B.A. degree. One course outside the department may count toward major with approval by department head.

### Physics (B.S.)

#### First Semester

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<td>Mathematics 150</td>
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<td>General Education</td>
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<td></td>
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<tr>
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#### Second Semester

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<tr>
<td>Category C</td>
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<tr>
<td>Computer Science 121</td>
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#### Sophomore

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<td>Physics 411</td>
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#### Junior

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#### Senior

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<td>Electives</td>
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### Area Concentration Courses

#### Pre-Medical, Pre-Dental, Pre-Pharmacy

- Physics 318
- Biology 121**, 122**, 301, 302, 311, 325, 328, 330
- Chemistry 241, 351**, 371, 372, 466**

#### Applied Nuclear Physics

- Physics 307, 310, 318**, 414, 419**, 499r
- Mathematics 250, 260
- Chemistry 241, 371, 372
- Biology 121, 122, 311, 325, 326

### Graduate School Preparation

- Physics 307**, 309**, 310**, 303, 313, 318, 414, 419
- Mathematics 250**, 260**
- Foreign Language-French, German

*Required or strongly recommended courses.
Student must consult advisor about area of specialization.
(See pages 29-31 for pre-professional requirements)

### Political Science (B.A.)

#### First Semester

<table>
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<tbody>
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<tr>
<td>Political Science 101, Problems in American Politics</td>
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<td>Category A</td>
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#### Second Semester

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<td>Political Science 201, Principles of Political Analysis</td>
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<td>General Education</td>
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### Psychology (B.A.)

#### First Semester

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<td>Foreign language</td>
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<td>General Education</td>
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<td></td>
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<tr>
<td>Category A</td>
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<tr>
<td>Elective</td>
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<tr>
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#### Second Semester

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### Junior

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### Senior

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<td>Natural or Applied Science Elective</td>
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### Psychology (B.S.)

**First Semester**

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**Second Semester**

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### Sociology and Anthropology (B.S.)

**Sociology Concentration**

**First Semester**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Sociology 151</td>
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<td>Humanities or Fine Arts</td>
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**Second Semester**

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**Sociology Concentration**

**Sophomore**

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**Junior**

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<td>Sociology 314</td>
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**Senior**

<table>
<thead>
<tr>
<th>Course</th>
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<td>Other Social Science</td>
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### Sociology and Anthropology (B.A.)

**Sociology Concentration**

**First Semester**

<table>
<thead>
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<th>Course</th>
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<tbody>
<tr>
<td>Sociology 151</td>
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<td>Humanities or Fine Arts</td>
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<tr>
<td>Language</td>
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**Second Semester**

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<td>Elective</td>
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<tr>
<td>Language</td>
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<td>General Education Category A</td>
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**Sophomore**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>Sociology Elective</td>
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<td>Sociology 209 or Elective</td>
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<td>Language (2nd year)</td>
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<td>Natural or Applied Science Elective</td>
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**Junior**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Sociology 312</td>
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**Senior**

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**May be taken either junior or Senior Year**
### Sociology and Anthropology (B.A.)
#### General Anthropology Concentration

<table>
<thead>
<tr>
<th>First Semester</th>
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| **Sociology and Anthropology (B.S.)**
#### General Anthropology Concentration

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</table>
Dr. Pat Perfetti talks with one of her students
Instructional Staff

The date after each name indicates the year of appointment.

Faculty Emeriti

Robert H. Anacker (1932) Professor Emeritus of Modern Languages
Ph. D., University of Berne, 1962

Stanley F. Bretske (1924) Vice-President Emeritus for Development

Enid P. Bryan (1960) Professor Emerita of English
A.B., University of Chattanooga, 1932; B.A. in L.S., University of North Carolina, 1940; M.A., 1933, Ph.D., 1942, Duke University.

Wilbur Kingsley Butts (1931) Cuerry Professor Emeritus of Biology
B.S., 1918, M.S., 1923, Ph.D., 1929, Cornell University.

Roland Debusske Carter (1942) Associate Professor of English
A.B., University of Chattanooga, 1932; B.A. in L.S., University of North Carolina, 1940; M.A., 1933, Ph.D., 1942, Duke University.

John Casale (1935) Associate Professor Emeritus of Violin
Studied with Maestro Giuseppe Bilancia, Barone Michele Deodata (Catania) and Edouard Dethier (Institute of Musical Art, New York).

Elizabeth Undress Oalton (1964) Professor Emerita of Education

Doris Doe (1956) Professor Emerita of Voice
Studied with Frank La Forge, Michael Rauchisen and Johannes Heidenreich (Berlin), and Artur Bodanzky.

Lewis A. Fletcher (1960) Professor Emeritus of Chemistry
B.S., Clemson Agricultural College, 1923; M.S., Oregon State College, 1926; Ph.D., University of Maryland, 1930.

Gilbert E. Govan (1934) Librarian Emeritus

John Toy Gray (1946) Associate Professor Emeritus of Mathematics
B.S., East Tennessee State College, 1927; M.A., George Peabody College for Teachers, 1942.

Isobel Griscom (1922) Associate Professor Emerita of English
A. B., Miami University; M.A., University of Wisconsin.

Gail Shipman Hammond (1946) Professor Emerita of Art
B.A.E., 1943, M.A.E., 1945, Art Institute of Chicago.

Reuben W. Holland (1946) Professor Emeritus of French
A.B., 1929, M.A., 1931, Emory University.

Karel Hujer (1946) Cuerry Professor Emeritus of Physics and Astronomy
D.Sc., University of Prague, 1932.

Edwin Samuel Lindsey (1924) Cuerry Professor Emeritus of English
A.B., 1919, A.M., 1921, Ph.D., 1923, University of North Carolina.

James Weston Livingood (1937) Cuerry Professor Emeritus of History
B.S., Gettysburg College, 1932; M.A., 1934, Ph.D., 1937, Princeton University.

Myron Stanley McCay (1948) Cuerry Professor Emeritus of Physics
A.B., University of Georgia, 1932; M.A., University of North Carolina, 1934; Ph.D., Ohio State University, 1937.

Paul L. Palmer (1925) Cuerry Professor Emeritus of Education and Psychology
A.B., 1921, A.M., 1922, Northwestern University.

Frederick A. Peery (1969) Professor Emeritus of Business Administration
B.S., 1933, M.S., 1936, Kansas State University; Ph.D., University of Texas, 1971.

Arthur Plettner (1937) Juilliard Professor Emeritus of Music
Mus. Bac., 1942, Mus. Doc., 1951, University of Toronto; State Conservatory of Music; Wurzburg, Germany, 1919-1923; Fellowship Juilliard Graduate School of Music, 1932-1936.

Frank Williams-Prescott (1928) Professor Emeritus of City Government
A.B., University of New Hampshire, 1919; M.A., 1921, Ph.D., 1925, University of Wisconsin.

Culver Haygood Smith (1932) Cuerry Professor Emeritus of History
A.B., Trinity College, 1923; M.A., Yale University, 1925; Ph.D., Duke University, 1933.

Maxwell Austin Smith (1922) Cuerry Professor Emeritus of Modern Languages

Charles C. Thompson (1955) Assistant Professor Emeritus of Economics and Business Administration

Dorothy Hackett Ward (1933) Cuerry Professor Emerita of Theatre and Speech
A.B., University of Chattanooga, 1928; Speech Diploma, Cadek Conservatory, 1932; M.F.A., Yale University, 1946.
Faculty, 1977-78

William R. Aaron (1972)  
Lecturer in Music; Coordinator of Cadet Conservatory  
B.M., Stetson University, 1969; M.M., North Texas State University, 1972.

David L. Anderson (1977)  
Assistant Professor of Criminal Justice  

Andrew W. Apter (1976)  
Professor of Theatre and Speech  
B.A., Tufts University, 1969; M.A., Indiana University, 1972; Ph.D., Indiana University, 1976.

Fred C. Armstrong (1967)  
Professor of Economics  
B.A., Southern Illinois University, 1947; M.A., Michigan State University, 1948; Ph.D., University of Illinois, 1953.

Robert C. Austin, Jr. (1974)  
Lecturer in Music  

George Warren Averitte (1953)  
Professor of Health and Physical Education  
B.S., University of Alabama, 1940; M.A., University of Mississippi, 1950; Ed. D., Columbia University, 1953.

Bert C. Bach (1975)  
Professor of English; Dean of the College of Arts and Sciences  
A.B., Eastern Kentucky University, 1958; M.A., George Peabody College for Teachers, 1959; Ph.D., New York University, 1966.

M. Daniel Baker (1976)  
Assistant Professor of Education  

William Morris Bales (1969)  
Assistant Professor of Music  
A.B., 1940, B.M., 1947, University of Chattanooga; M.A., George Peabody College for Teachers, 1953.

Merilee Banoun (1976)  
Assistant Professor of French and German  

Craig W. Barrow (1970)  
Associate Professor of English  

* Frances Bender (1970)  
Assistant Professor of Human Services  

Bernard Wayne Benson (1970)  
UC Foundation Professor of Education  
B.S., 1962, M.S., 1966, Northern Illinois University; Ph. D., University of Iowa, 1970.

Crayton Robert Benson, Jr. (1967)  
Professor of Education  

Richard E. Bergenback (1968)  
Associate Professor of Geology  
A.B., Lafayette College, 1948; M.S., Lehigh University, 1950; Ph.D., Pennsylvania State University, 1964.

Thomas E. Biber (1970)  
Associate Professor of Education; Coordinator of Field Services; Certification Officer  

Frances jean Biddle (1967)  
Assistant Professor of Health and Physical Education  

Michael D. Biderman (1972)  
Assistant Professor of Psychology  

Dan E. Birch (1977)  
Assistant Professor of Economics  
B.A., Brigham Young University, 1970; M.S., 1972, Ph.D., 1977, Purdue University.

Joseph F. Boessen (1976)  
Assistant Professor of Military Science  

*On Leave 1977-78.

Ronald G. Bohrer (1968)  
Associate Professor of Classics; Head, Foreign Languages and Literature  

Donald R. Bonney (1977)  
Assistant Professor of Economics  

Linda HuIts Boudreau (1976)  
Assistant Professor of Art  

Daniel Alan Bowles (1976)  
Assistant Professor of Music  

Albert Bowman (1962)  
Professor of History  

Franklin Lee Boyer (1967)  
Professor of Chemistry  
B.S., Western Kentucky State College, 1949; Ph.D., Vanderbilt University, 1960.

Walker L. Breland (1972)  
Associate Professor of Music  
B.A., Furman University, 1958; M.M., 1959, Ph. D., 1974, Indiana University.

David M. Brodsky (1971)  
Associate Professor of Political Science  
Head, Political Science Department  

Charles Alfred Brown (1961)  
Associate Professor of Mathematics  
B.A., Berea College, 1956; M.A., Florida State University, 1958; Ph.D., University of Mississippi, 1975.

Jeffrey L. Brown (1973)  
Associate Professor of Sociology and Anthropology  

Tommie F. Brown (1971)  
UC Foundation Associate Professor of Social Work; Coordinator of Social Work Program  
B.A., Dillard University, 1957; M.S.W., Washington University, 1964.

Herbert W.L. Burhenn, Jr. (1970)  
Associate Professor of Philosophy and Religion  
A.B., Johns Hopkins University, 1966; M.Phil., 1969, Ph.D., 1970, Yale University.

Martha Butterfield (1974)  
Assistant Professor of Nursing  
B.S.N., 1957, M.S.N., 1964, Ohio State University.

William L. Butterfield (1967)  
Associate Professor of Education  
B.A., Ohio Northern University, 1952; B.D., Garrett Theological Seminary, 1955; Ph.D., Ohio State University, 1967.

Edward E. Cahill (1975)  
Professor of Sociology and Anthropology; Head, Sociology and Anthropology Department  
B.S.Sc, St. Mary's College, 1952; M.A., University of Notre Dame, 1957; Ph.D., The Catholic University of America, 1965.

Pedro F. Campa (1970)  
Associate Professor of Spanish  

Terrance M. Carney (1970)  
Associate Professor of Engineering  
S.B.A.E., 1956, S.M.A.E., 1958, MIT; Ph.D., Rice University, 1967, P.E.

David W. Carrithers (1970)  
UC Foundation Associate Professor of Political Science  

A. Richard Casavant, Jr. (1977)  
Associate Professor of Business Administration  
B.A., Emory University; M.B.A., University of Pennsylvania, 1966; Ph.D., Georgia State University, 1976.

Gwendolyn Charles (1975)  
Associate Professor of Nursing  
B.S.N. A & T State University (North Carolina), 1960; M.S.N., Emory University, 1970.

Kuo-Hsin Chen (1968)  
Associate Professor of History  
B.A., Fukien Christian University, 1936; M.A., University of Southern California, 1937.

Jack E. Clark (1977)  
Assistant Professor of Mathematics  
B.S., Massachusetts Institute of Technology, 1964; M.S., 1966, Ph.D., 1972, Stanford University.
Peter Edwin Gerschefski (1971)  Professor of Music;  Head, Cadek Department of Music  B.A., Yale University, 1958; M.A., University of Southern California, 1959; Ph.D., Florida State University, 1962.


Donna B. Green (1974)  Assistant Professor of Nursing  Diploma, Chesapeake & Ohio School of Nursing, 1957; B.S.N., University of Kentucky, 1966; M.S.N., Vanderbilt University, 1974.


Phillip E. Giffin (1977)  Associate Professor of Economics  B.A., Lamar Technological University, 1966; M.A., Texas Technological University, 1968; Ph.D., The University of Tennessee, Knoxville, 1972.

Jean G. Lewis (1974)  Assistant Professor of Criminal Justice;  Assistant Dean of Continuing Education  B.A., Pennsylvania State University, 1964; M.A., Michigan State University, 1966; Ed.D., Indiana University, 1974.

Benjamin Harrison Gross (1964)  Cuery Professor of Chemistry  Head, Chemistry Department  B.S., University of Chattanooga, 1952; M.S., 1954, Ph.D., 1956, The University of Tennessee, Knoxville.


James R. Hall (1977)  Assistant Professor of Psychology  B.A., 1967, University of Iowa; Ph.D., 1974, University of Nevada.


Jane Worth Harbaugh (1957)  Professor of History;  Vice Chancellor for Academic Affairs  A.B., Tufts College, 1952; A.M., 1953, Ph.D., 1957, Fletcher School of Law and Diplomacy, Tufts University.

Elbert Louis Hayes (1976)  Associate Professor of Chemistry  B.S., University of Missouri at Kansas City, 1963; Ph.D., Purdue University, 1972.

Marjorie M. Headricks (1976)  Associate Professor of Nursing  Diploma, Baptist Memorial Hospital School of Nursing, 1954; B.A., George Peabody College, 1964; M.S., University of Maryland, 1970.

George B. Helton (1975)  Assistant Professor of Psychology  B.S., 1966; M.S., 1967, North Texas State University; Ph.D., University of Texas; Austin, 1972.


Morris Clifford Hetzler (1964)  Associate Professor of Physics  Director of Jones Observatory  A.B. University of Chattanooga, 1959; Ph.D., Vanderbilt University, 1970.


Ralph W. Hood, Jr. (1970)  Associate Professor of Psychology  A.B., University of California, Los Angeles, 1964; M.A., California State College at Los Angeles, 1966; Ph.D., University of Nevada, 1968.


Charles Monroe Hyder (1968)  Professor of Education;  Director of Graduate Studies;  Dean of the College of Professional Studies  B.S., 1951, M.A., 1955 Appalachian State University; Ed.D., Duke University 1968.


Mary B. Jackson (1973)  Associate Professor of Nursing  Diploma, Barons Erlanger Hospital School of Nursing, 1947; B.S., University of Chattanooga, 1954; B.S.N., 1961, M.S.N., 1962, University of Alabama.


Thomas Kirkman Jones (1967)  Assistant Professor of Spanish  A.B., University of Chattanooga, 1965; M.A., University of Illinois, 1966.

William Barry Jones (1967)  Associate Professor of Music;  Director of Bands  B.S., Tennessee Technological University, 1952; M.M.Ed., Louisiana State University, 1959.

Paul N. Keaton (1973)  Assistant Professor of Business Administration  B.S.B., 1964, Ph.D., 1973, University of Minnesota.


Clive Kileff (1970)  Associate Professor of Sociology and Anthropology  A.B., Harvard University, 1966; Ph.D., Rice University, 1970.


Norbert Koch (1947)  Professor of Engineering  B.Ed., Wisconsin State University, 1937; M.S., The University of Tennessee, Knoxville, 1940; Ed.D., University of Missouri, 1951.


Jane A. Lamb (1976)  Assistant Professor Social Work;  Director of Field Placement  B.S., East Tennessee State University, 1964; M.S.W., Florida State University, 1966.

Eric Trent Lane (1967)  Associate Professor of Physics  B.S., Louisiana State University, 1960; M.A., 1963, Ph.D., 1967, Rice University.
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Institution</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alan L. Larson</td>
<td>Assistant Professor of Economics</td>
<td>B.A., University of Nebraska, 1968; Ph. D., Kansas State University, 1976.</td>
<td>1973</td>
</tr>
<tr>
<td>David L. Lewis</td>
<td>Assistant Professor of Business Administration</td>
<td>B.A.E., Rensselaer Polytechnic Institute, 1959; M.B.A., Georgia State University, 1966.</td>
<td>1977</td>
</tr>
<tr>
<td>Jim G. Lewis</td>
<td>Assistant Professor of Theatre and Speech</td>
<td>B.A., Baylor University, 1962; M.A., University of North Carolina, 1964; M.A., Baylor University, 1972.</td>
<td>1969</td>
</tr>
<tr>
<td>Russell Linnemann</td>
<td>Assistant Professor of History</td>
<td>A.B., Grinnell College, 1965; M.A., 1966, Ph.D., 1972, University of Michigan.</td>
<td>1969</td>
</tr>
<tr>
<td>Robert Gary Litchford</td>
<td>Associate Professor of Biology</td>
<td>B.S., Georgia Southern College, 1960; Ph.D., Rice University, 1965.</td>
<td>1965</td>
</tr>
<tr>
<td>Arlin W. Little</td>
<td>Assistant Professor of Art</td>
<td>B.S., 1972, Georgia College; M.A.E., 1975, University of Georgia.</td>
<td>1976</td>
</tr>
<tr>
<td>Eugene S. Lobot</td>
<td>Associate Professor of History</td>
<td>Head, History Department</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A.B., University of Pennsylvania, 1963; M.A., University of South Carolina, 1965; Ph.D., Ohio State University, 1970.</td>
<td></td>
</tr>
<tr>
<td>John August Lynch</td>
<td>Assistant Professor of Chemistry</td>
<td>B.S., St. Peter's College, 1970; Ph.D., Pennsylvania State University, 1976.</td>
<td>1975</td>
</tr>
<tr>
<td>William Henry Masterson</td>
<td>Professor of History</td>
<td>B.A., Rice University, 1935; M.A., 1946, Ph.D., 1950, University of Pennsylvania.</td>
<td>1969</td>
</tr>
<tr>
<td>Barbara J. McCullough</td>
<td>Assistant Professor of Education</td>
<td>B.S., 1957, M.S., 1968, Ph.D., 1975, Florida State University.</td>
<td>1976</td>
</tr>
<tr>
<td>Horace Greetley McDowell</td>
<td>Associate Professor of Geography</td>
<td>A.B., Miami University, 1949; M.A., University of Nebraska, 1950; Ed.D., The University of Tennessee, Knoxville, 1971.</td>
<td>1969</td>
</tr>
<tr>
<td>Louise Willis McIntosh</td>
<td>Associate Professor of Mathematics</td>
<td>B.S., 1940, M.Ed., 1962, University of Chattanooga; M.S., The University of Tennessee at Chattanooga, 1971.</td>
<td>1969</td>
</tr>
<tr>
<td>Rayford John McLaurin</td>
<td>Associate Professor of Business Administration</td>
<td>B.S., Bowling Green Business University, 1948; M.B.A., University of Alabama, 1951.</td>
<td>1955</td>
</tr>
<tr>
<td>Robert Lewis McNeely</td>
<td>Associate Professor of Chemistry</td>
<td>B.S., Duke University, 1960; Ph. D., University of North Carolina, 1969.</td>
<td>1969</td>
</tr>
<tr>
<td>Jean Meacham</td>
<td>Director, Academic Advisement and Orientation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lecturer in English</td>
<td>B.A., Agnes Scott, 1938; M.A.T., University of Chattanooga, 1965.</td>
<td>1965</td>
</tr>
<tr>
<td>Robert Cecil Mildram</td>
<td>Alumni Distinguished Service Professor of Philosophy and Religion</td>
<td>Ph.B., University of Vermont 1935; B.D., Andover-Newton Theological School, 1938; M.A., 1943, Ph.D., 1949, Yale University.</td>
<td>1964</td>
</tr>
<tr>
<td>Lyn W. Miles</td>
<td>Assistant Professor of Sociology and Anthropology</td>
<td>B.A., 1965, Ph. D., 1976, University of Connecticut; M.A., Hartford Seminary Foundation, 1968.</td>
<td>1976</td>
</tr>
<tr>
<td>Earl B. Miller</td>
<td>Assistant Professor of Music</td>
<td>B.M., University of Chattanooga, 1949; M.A., Columbia University, 1957; studied with Beryl Rubinstein, Cleveland Institute of Music, 1952.</td>
<td>1957</td>
</tr>
<tr>
<td>Ronald Oury Moore</td>
<td>Associate Professor of History</td>
<td>A.B., College of William and Mary, 1950; M.A., Harvard University, 1951; Ph.D., University of Virginia, 1960.</td>
<td>1950</td>
</tr>
<tr>
<td>Rosa Ann Moore</td>
<td>Assistant Professor of English</td>
<td>B.A., University of Richmond, 1953; M.A., University of Virginia, 1959.</td>
<td>1953</td>
</tr>
<tr>
<td>Dannie B. Morris</td>
<td>Professor of Military Science</td>
<td>Head, Military Science Department Lieutenant Colonel, U.S. Army; B.S., 1958, M.B.A., Middle Tennessee State University, 1971.</td>
<td>1958</td>
</tr>
<tr>
<td>Fouad Moughrabi</td>
<td>Associate Professor of Political Science</td>
<td>B.A., 1964, M.A., 1965, Duke University; Diplome d'Etudes Superieures, 1968; Docteur es Science Politique, 1972, University of Grenoble.</td>
<td>1965</td>
</tr>
<tr>
<td>Linda L. Myers</td>
<td>Assistant Professor of Human Services</td>
<td>B.S., 1969, M.A., 1972, Middle Tennessee State University.</td>
<td>1972</td>
</tr>
<tr>
<td>Charles Henry Nelson</td>
<td>Associate Professor of Biology</td>
<td>B.S., 1963, M.S., 1967, Ph.D., 1969, University of Massachusetts.</td>
<td>1963</td>
</tr>
<tr>
<td>Judy C. Nixon</td>
<td>Assistant Professor of Office Administration/</td>
<td>Business Education B.S., 1967, M.Ed., Mississippi State University, 1968; Ph.D., Georgia State University, 1975.</td>
<td>1967</td>
</tr>
<tr>
<td>Barbara Norwood</td>
<td>Instructor of Nursing</td>
<td>B.S.N., The University of Tennessee Medical Units, 1971.</td>
<td>1971</td>
</tr>
<tr>
<td>Larry W. Noyes</td>
<td>Assistant Professor of Sociology and Anthropology</td>
<td>A.B., University of California at Berkeley.</td>
<td>1971</td>
</tr>
<tr>
<td>DeWayne S. Nymann</td>
<td>Associate Professor of Mathematics</td>
<td>B.A., University of Northern Iowa, 1957; M.A., 1959, Ph.D., 1964, University of Kansas.</td>
<td>1957</td>
</tr>
<tr>
<td>Janet R. Nymann</td>
<td>Assistant Professor of Education</td>
<td>B.A., University of Northern Iowa, 1956; M.S., 1961, Ed. D., 1965, University of Kansas.</td>
<td>1956</td>
</tr>
<tr>
<td>L. Lynn Oruth</td>
<td>Associate Professor of Psychology</td>
<td>A.B., 1955, M.A., 1958, Ph.D., 1963, University of Missouri.</td>
<td>1958</td>
</tr>
<tr>
<td>Irene Nichols Ozbek</td>
<td>Assistant Professor of Psychology</td>
<td>B.A., 1969, M.S., 1972, Ph.D., 1974, University of Georgia.</td>
<td>1972</td>
</tr>
<tr>
<td>Bart Carter Pate</td>
<td>Associate Professor of Sociology and Anthropology</td>
<td>B.A., University of Texas, 1948; M.A., Vanderbilt University, 1950; M. Div., 1958, Ph.D., 1964, Boston University.</td>
<td>1948</td>
</tr>
<tr>
<td>Richarda P. Pierce</td>
<td>Lecturer in English</td>
<td>B.A., University of Chattanooga, 1962; M.A., Emory University, 1964.</td>
<td>1962</td>
</tr>
<tr>
<td>Ellen R. Portony</td>
<td>Assistant Professor of Nursing</td>
<td>B.S.N., 1970, M.S.N., 1974, Wayne State University.</td>
<td>1970</td>
</tr>
<tr>
<td>Leila J. Pratt</td>
<td>Assistant Professor of Economics</td>
<td>B.S., Auburn University, 1971; M.A., 1973, Ph.D., 1975, Virginia Polytechnic Institute and State University.</td>
<td>1971</td>
</tr>
<tr>
<td>Phyllis Jan Printz</td>
<td>Assistant Professor of Psychology</td>
<td>B.A., University of Kansas City, 1950; M.A., University of Missouri, Kansas City, 1951.</td>
<td>1950</td>
</tr>
</tbody>
</table>

*On leave 1977-78.*
Dan Quarles (1977)  
Assistant Professor of Education  

James J. Quinn (1975)  
Assistant Professor of Business Administration  
B.S., 1972; M.B.A., 1974, The University of Tennessee, Knoxville; C.P.A.

Alan Rabkin (1977)  
Assistant Professor of Economics  
B.A., Hamilton College, 1969; Ph.D., University of Virginia, 1977.

Paul Ramsey (1966)  
Alumni Distinguished Service Professor of English; Poet in Residence  

Henry Cleveland Ransom (1961)  
Assistant Professor of Physics; Director of Physics-Astronomy Laboratories  

Charles M. Renneisen (1970)  
Associate Professor of Education; Dean of Students  

Janice W. Rhodes (1977)  
Instructor of Home Economics  
B.S., The University of Tennessee, Knoxville, 1969; M.Ed., The University of Tennessee at Chattanooga, 1976.

Michael Reynard Richards (1961)  
Associate Professor of English  

Danette L. Riddlespurger (1977)  
Associate Professor of Music  

Arthur Rivituto (1969)  
Associate Professor of Music  

Norma L. Roberts (1976)  
Assistant Professor of Social Work  
B.A., Harding College, 1955; M.S.S.W., The University of Tennessee, Knoxville, 1961.

Leland W. Robinson (1972)  
Assistant Professor of Sociology and Anthropology  

James A. Rodeghero (1977)  
Assistant Professor of Psychology  
B.A., St. Louis University; M.A., 1975, Ph.D. 1977, Bowling Green State University.

Patricia E. Rowe (1974)  
Instructor in Education  
B.S., Tennessee State University, 1970; M.Ed., The University of Tennessee at Chattanooga, 1974.

Edward Ralph Rozema (1973)  
Assistant Professor of Mathematics  
A.B., Calvin College, 1967; M.S., 1969, Ph.D., 1972, Purdue University.

Walter McCintock Ruby, Jr. (1960)  
Associate Professor of Education  

Ellwood Derrick Rushworth (1948)  
Associate Professor of Music  

James M. Russell (1970)  
Assistant Professor of History  

Lynn D. Russell (1969)  
Professor of Engineering; Dean of School of Engineering  
B.S., 1960, M.S., 1961, Mississippi State University; Ph.D., Rice University, 1966, P.E.

Larry J. Ryan (1977)  
Associate Professor of Business Administration  
B.S., Clemson University, 1963; M.B.A., Southern Methodist University, 1968; Ph.D., North Texas State University, 1976.

Phyllis Sahadi (1975)  
Assistant Professor of Music  
B.A., University of South Carolina, 1964; M.M., Indiana University, 1966.

Reed Sanderlin (1969)  
Associate Professor of English  

J. Eric Schonblom (1974)  
Associate Professor of Engineering  
B.S., 1956, S.M., 1958, Massachusetts Institute of Technology; Ph.D., University of Florida, 1974; P.E.

Marjorie Scekan (1975)  
Professor of Nursing; Director of Nursing Department  

Hugh Nelson Seay, Jr. (1965)  
Professor of Spanish  

Herschel Vernon Sellers, Jr. (1961)  
Associate Professor of Mathematics  
B.S., U.S. Naval Academy, 1940; M.S., Purdue University, 1961.

Edgar McDowell Shawen (1970)  
Assistant Professor of English  
B.A., University of Virginia, 1966; M.Phil., 1969, Ph.D., 1972, Yale University.

James Peter Sikora (1973)  
Assistant Professor of Sociology and Anthropology; Director, Division of Human Services  

Allison Von Stagle (1960)  
Assistant Professor of Education  

Clint Wills Smullen, III (1973)  
Assistant Professor of Mathematics  

Mosetta S. Soskis (1975)  
Associate Professor of Business Education; Office Administration  

Dan C. Spalding (1978)  
Assistant Professor of Music  

Karen Stevens (1975)  
Instructor of Nursing  
B.S.N., University of Wisconsin, 1964.

Jenice P. Stewart (1976)  
Assistant Professor of Business Administration  
B.S., Lindenwood College, 1974; M.C., University of Illinois, 1976.

Roy Stinnett (1967)  
Professor of Health and Physical Education; Director of School of Education  
B.S., University of Nebraska, 1959; M.Ed., Ed.D., 1969, University of Mississippi.

James Stroud (1976)  
Associate Professor of Music  
B.M., Louisiana State University, 1957; M.M., Hartt College of Music of the University of Hartford, 1961.

Edgar Styrker (1973)  
Assistant Professor of French and German  

Lewis A. M. Sumberg (1972)  
University Professor  

Robert H. Swansbrough (1971)  
Associate Professor of Political Science  

David W. Tandy (1977)  
Assistant Professor of Classics  

"On Leave 1977-78."
Staff of the Library

Joseph A. Jackson (1973)  Professor, Director of Libraries

Mirneal C. Brown (1969)  Associate Professor; Head, Acquisitions Department

Deborah A. Claybrooks (1977)  Instructor; Reference Librarian

Robert Neal Coulter (1971)  Instructor; Reference Librarian

Martha J. Gundaker (1969)  Assistant Professor; Head, Public Services
A.B., University of Chattanooga, 1937; B.S.L.S., University of North Carolina, 1938.

Jane E. McFariand (1977)  Assistant Professor; Reference Librarian

Sarla Murgai (1969)  Assistant Professor; Head, Circulation Services
B.S., 1952, M.A., 1954, Government College (Ludhiana); B.L.S., University of Delhi, 1962; M.S.L.S., Atlanta University, 1968.

Jessie L. Nicol (1977)  Instructor; Catalog Librarian

Susan H. Pinckard (1975)  Assistant Professor; Head, Catalog Department

Anne L. Seay (1975)  Instructor; Catalog Librarian

Allison von Stagle (1960)  Assistant Professor of Education; Head, Audiovisual Services

Marilyn Snow Tinsley (1973)  Instructor; Reference Librarian

Thomas B. Roberts (1976)  Head Baseball Coach
B.S., 1975, The University of Tennessee at Chattanooga.

James W. Morgan (1969)  Wrestling Coach/Administrative Assistant

C. Robert Benson (1967)  Head Tennis Club

Sharon Fanning (1976)  Women’s Coach/Administrative Assistant
B.S., 1975, The University of Tennessee at Chattanooga.

Alice Tym (1974)  Women’s Tennis Coach

Steve Underwood (1977)  Track and Cross Country Coach
B.A., Southwestern Louisiana University; M.E., Northeastern Louisiana University, 1976.

Terry Lewis (1977)  Certified Trainer

Reed Sanderlin (1977)  Coif Coach

William Patrick (1976)  Sports Information Director
B.S., 1976, East Carolina University.

Johnnie Jackson (1966)  Athletic Business Manager
Mary Tinker (1971)  Academic Advisor

Adjunct Faculty

Billy Lester Abel (1977)  Mathematics
B.S. Nichols State University, 1971; M.Ed., The University of Tennessee at Chattanooga, 1977.

William White Acuff (1976)  Music
B.S., Tennessee Technological University, 1976.

Melissa Atkinson (1974)  Education

Harold H. Baker (1975)  Education

Andrew Baird (1976)  English

Caroline M. Best (1977)  Mathematics

Nancy Bibler (1971)  Education
A.B., Indiana University, 1958; M.A., Ball State University, 1966.

Finn Bille (1977)  English

Jean B. Blackburn  Nursing

Barbara Bracket (1977)  Human Services

Charles Burns (1975)  Business Administration
B.S., 1964, J.D., 1969, The University of Tennessee, Knoxville; C.P.A.

Jane Furlong-Cahill (1976)  Human Services
A.B., Chestnut Hill College, 1951; Ph.D., St. Mary’s, 1953; M.S.W., University of Georgia, 1976.

Paul Campbell (1976)  English

William M. Carter (1975)  Business Administration

Robert A. Catala (1976)  Criminal Justice/Human Services

Jean T. Cates (1975)  Education

Staff of the Department of Athletics

Harold B. Wilkes (1959)  Director of Athletics
B.S., University of Chattanooga, 1959.

Joe R. Morrison (1973)  Head Football Coach
B.S., University of Cincinnati, 1959.

Frank T. Sadler (1977)  Assistant Football Coach

James Roy Gregory (1977)  Assistant Football Coach
B.S., University of Chattanooga, 1968.

Joseph L. Dunn (1971)  Assistant Football Coach
B.S., University of Chattanooga, 1968.

Robert Feaster (1973)  Assistant Football Coach
B.S., Seton Hall University, 1958.

Henry Sorrell (1974)  Assistant Football Coach
B.S., University of Chattanooga, 1967; M.Ed., Middle Tennessee State University, 1971.

Ronald Shumate (1970)  Head Basketball Coach

Ralph Underhill (1972)  Assistant Basketball Coach
B.S., Tennessee Technological University, 1964; M.A., Western Kentucky University, 1965.
Charles S. Colburn (1971) Chemistry
B.S., University of Chattanooga, 1940; M.S., The University of Tennessee, Knoxville, 1942.

Jay Craven (1970) Music
B.S., University of Chattanooga, 1954; M.M.E., Vandercook College of Music, 1956

Anne C. Cudd (1975) Business Administration/Mathematics
B.S., Denison University, 1961; M.D., Ohio State University, 1967; M.S., University of Delaware, 1975.

Delia C. Dennis (1976) Social Work
B.S., Hampton Institute, 1945; M.S.W., Atlanta University, 1949.

Katherine P. Dixon (1971) Home Economics

David Evans (1969) Business Administration
B.B.A., University of Chattanooga, 1942.

Elizabeth Fan (1975) Music

Cora Feintuch (1975) Education

Martha Freels (1963) Computer Science
B.A., Denison University, 1948.

Donna Gaines (1975) Computer Science
B.S., The University of Tennessee at Chattanooga, 1976.

Penelope Gershefski (1973) Music
B.A., Florida State University, 1962.

B.S., Middle Tennessee State College, 1953; M.Ed., The University of Tennessee at Chattanooga, 1971.

Patricia Handley (1960) English

Durwood C. Harvey (1970) Business Administration
B.B.A., University of Chattanooga, 1947; M.S., The University of Tennessee, Knoxville, 1948; C.P.A.

Francis X. Hiemenez (1973) Business Administration

Julia M. Higgins (1977) Mathematics
B.S., The University of Tennessee at Chattanooga, 1975.

Pamela A. Howard (1976) Nursing
B.S.N., Seattle University, 1970; M.S.N., University of Alabama, 1976.

Gordon Hutchinson (1974) Business Administration
B.B.A., Harvard University, 1937; C.P.A.

Margaret Jackson (1976) English

Philip A. Johnson (1977) Nursing

George W. Jones (1972) Business Administration
J.D., Vanderbilt University, 1954.

Nora S. Kile (1977) Music
B.M., 1971, College Conservatory of Music, University of Cincinnati.

William B. Knis (1976) Music

David Larson (1971) Business Administration

B.S. 1969, M.S., 1974, Kansas State University.

Solomon Lindsey (1977) Social Work
B.A., Morehouse College, 1955; M.S.S.W., The University of Tennessee, Knoxville, 1969.

Maria Lowenthal (1977) English

Billy G. McKinney (1971) Engineering
B.S., University of Kentucky, 1957; Ph.D., University of Alabama, 1969; P.E.

Sharon S. McLeod (1977) Theatre and Speech

Barbara R. McNew (1973) Human Services

Josephine Magness (1976) Nursing
B.S.N. Mt. St. Agnes College, 1955; M.P.H., Johns Hopkins University, 1968.

Roger A. Matson (1975) Economics

Lynn C. Maxwell (1975) Economics
B.A., Hiram College, 1965; M.A., Kent State University, 1965; Ph.D., University of Nebraska, 1969.

Robert E. Mayes (1971) Business Administration
B.S., The University of Tennessee, Knoxville, 1950.

Myron Stanley McCay (1948) Cuerry Professor Emeritus of Physics
A.B., University of Georgia, 1932; M.A., University of North Carolina, 1934; Ph.D., Ohio State University, 1937.

Sadie M. Monroe (1976) Social Work
B.S., University of Evansville, 1963; M.S.W., Washington University, 1968.

Marilyn Morton (1974) Art
B.S., University of Chattanooga, 1969, M.Ed., The University of Tennessee at Chattanooga, 1975.


David W. Nash (1977) Human Services

Roy E. Neeley, Jr. (1977) Human Services
B.S., East Tennessee State University, 1964; M.S.W., 1966; Ph.D., 1970, Florida State University.

Lisa R. Newsom (1973) Psychology

H. Edwin Overcast (1975) Economics
B.A., King College, 1969; Ph.D., Virginia Polytechnic Institute and State University, 1972.

Gerald E. Payne (1969) Business Administration
B.S., 1960, M.B.A., 1963, University of Chattanooga; C.P.A.

Christene Perkins (1975) Nursing

Robin Pierce (1976) Education

Elaine Pugh (1977) English

Donald R. Ricketts (1974) Human Services
B.S., Middle Tennessee State University, 1969; M.S.W., Middle Tennessee State University and The University of Tennessee, Knoxville, 1973.

William H. Riddlesperger (1977) Music
B.M., Florida State University, 1976; M.M., University of Cincinnati, 1970.

Norma L. Roberts (1976) Social Work
B.A., Harding College, 1955; M.S.S.W., The University of Tennessee, Knoxville, 1961.

Connie Rowland (1975) Home Economics
B.S., University of Tennessee at Chattanooga, 1972; M.S., The University of Tennessee, Knoxville, 1974.

Jo Ruta (1976) Computer Science

Dixie Forester Saeger (1976) Home Economics
B.S., Tennessee Technological University, 1962.

Paul R. Sanderford (1975) Economics
B.S.E.E., Georgia Institute of Technology, 1958; M.B.A., University of Chattanooga, 1965.

Harry V. Scott, Jr. (1975) Business Administration
B.B.A., University of Georgia, 1970.

Margaret G. Shutters (1974) Education
B.S., University of Chattanooga, 1960.
George L. Stvilis, Jr.  
B.A., University of Chattanooga, 1968; Ph.D., The University of Tennessee, Knoxville, 1974.

Donald B. Smith (1975)  
Human Services  
B.S., University of Chattanooga, 1965; M.S.S.W., The University of Tennessee, Knoxville, 1971.

Leonidas Smith (1956)  
Mathematics  
B.A., University of Chattanooga, 1942.

Juanita Thomas  
Home Economics  
(1972)

Computer Science  
Charles Sullivan  
(1975)

Jennie B. Storey (1975)  
English  

Lyn Sturrock (1974)  
Education  
B.S., Delta State University, 1964; M.A., University of Alabama, 1971.

Ned Joseph Sturzer (1977)  
Mathematics  
B.S., Massachusetts Institute of Technology, 1968; M.S., University of Wisconsin, 1969; M.S., State University of New York, Buffalo, 1974.

Charles Sullivan (1974)  
Computer Science  

George O. Taylor, Jr. (1960)  
Mathematics  
B.S., University of Chattanooga, 1958; M.S., Michigan State University, 1960; Ph.D., Georgia Institute of Technology, 1969.

Jane Teeter (1976)  
Education/Home Economics  
B.S., University of Alabama, 1968; M.S., The University of Tennessee, Knoxville, 1971.

David J. Tepper (1976)  
Education; Social Work  

Juanita Thomas (1972)  
Home Economics  
B.S., 1955, M.S., 1956, The University of Tennessee, Knoxville.

Herbert Thornbury (1974)  
Business Administration  

Ralph T. Thornbury (1977)  
Theatre and Speech  

Thomas Gibbs Underwood (1977)  
Music  
B.M., Georgia State University, 1976.

Jeannette Vallier (1970)  
English  

Betty Vines (1976)  
Education  

William L. Walton (1976)  
Mathematics  

Dorothy Weathersby (1975)  
English  

Deanne R. Werner (1976)  
Music  

Colbert Whitaker (1974)  
Education  

David Wilhoite (1976)  
English  

Juanita G. Woods (1976)  
Mathematics  
B.S., Fisk University, 1951; M.S., Tennessee A & I University, 1956; M.A., Purdue University, 1965.

Sally B. Young (1976)  
English  

Sonia W. Young (1975)  
Education  

Administrative Directory  
1977-78

Office of the Chancellor  
James E. Drinnon, Jr. (1973)  
Chancellor  

Richardia P. Pierce (1966)  
Assistant to the Chancellor  
A.B., University of Chattanooga, 1962; M.A., Emory University, 1964.

Academic Affairs  
Jane W. Harbaugh (1957)  
Vice Chancellor  

Administration  
Charles M. Temple (1973)  
Vice Chancellor  

Admissions and Records  
Ray P. Fox (1974)  
Dean  

Michael A. White (1977)  
Director of Admissions  

Natalie D. Schlack (1951)  
Director of Records  
A.B., University of Chattanooga, 1945; M.Ed., University of Wisconsin, 1946.

Brenda S. Davis (1968)  
Director of Registration  
B.A., Oglethorpe University, 1964; M.Ed., The University of Tennessee at Chattanooga, 1972.

Jean Meacham (1965)  
Director of Advisement & Orientation  

Ann S. Tinson (1973)  
Director of Financial Aid  

Susan Rockwell (1975)  
Financial Aid Counselor  

Beverly Howell (1975)  
Admissions Officer  

Gail S. Patterson (1975)  
Admissions Officer  

Marlyn P. Benson (1977)  
Assistant Director of Records  

Alumni  
Deborah Taylor Whitehead (1977)  
Director  

College of Arts and Sciences  
Bert C. Bach (1975)  
Dean  
A.B., Eastern Kentucky University, 1958; M.A., George Peabody College for Teachers, 1959; Ph.D., New York University, 1966.

College of Professional Studies  
Charles M. Hyder (1968)  
Dean  

Computer Center  
John True (1971)  
Director  

Continuing Education and Public Service  
Joel L. Cunningham (1974)  
Dean  


Dorothy N. Franke Director, Special Projects and Grants B.S., Northern Illinois University, 1965; M.S., University of Iowa, 1957.


William D. Schultz (1973) Director of Accounting, Disbursements, Grants and Contracts B.S., The University of Tennessee at Chattanooga, 1969; C.P.A.


Donald L. Pickard (1975) Assistant to Director; Superintendent of Building Services A.E., Chattanooga State Technical Institute, 1967; B.S., The University of Tennessee at Chattanooga, 1975.


School of Engineering Lynn D. Russell (1969) Dean B.S., 1960, M.S., 1961, Mississippi State University; Ph.D., Rice University, 1966, P.E.


Diane Stocker (1973) Assistant Dean/Placement Coordinator B.A., The University of Tennessee at Chattanooga, 1972.


Assistant Dean Director of the Individualized Education Program and Adult-Student Services B.A., Pennsylvania State University, 1964; M.A., Michigan State University, 1966; Ed.D., Indiana University, 1974.

Director of Non-credit Programs Coordinator B.S., East Tennessee State University, 1975.

Director of Communication Services B.S., Tennessee A&I University, 1950; M.Ed., The University of Tennessee at Chattanooga, 1974.

Director of Conferences and Institutes A.B., The University of Tennessee at Chattanooga, 1967; M.A., Florida State University, 1970.


Counselor B.A., Hampton Institute, 1969; M.Ed., The University of Tennessee at Chattanooga, 1976.

Executive Director B.S., Birmingham Southern College, 1965; M.A., 1968, Ph.D., 1972, University of Alabama.

Associate Director B.A., Dickinson College, 1972.

Assistant Campaign Director B.A., King College, 1960; M.Ed., Presbyterian School of Christian Education, 1967.

Director, Special Projects and Grants B.S., Northern Illinois University, 1965; M.S., University of Iowa, 1957.

Vice Chancellor B.S., University of Minnesota, 1967; M.B.A., The University of Tennessee, Knoxville, 1969; C.P.A.


Director of Purchasing B.S., The University of Tennessee, Knoxville, 1950.

Director of Food Services A.B., Drury College, 1961.

Director of Bookstores B.S., The University of Tennessee, Knoxville, 1968; M.B.A., The University of Tennessee at Chattanooga, 1976.

Bursar B.S., The University of Tennessee, Knoxville, 1976.

Auditor B.S., Tennessee Technological University, 1970.

Director of Accounting, Disbursements, Grants and Contracts B.S., The University of Tennessee at Chattanooga, 1969; C.P.A.


Graduate Admissions Officer B.S., 1969, The University of Tennessee, Knoxville; M.Ed., 1976, The University of Tennessee at Chattanooga.


Research Associate B.A., Memphis State University, 1971.

Management Analyst B.S., Georgia Institute of Technology, 1974.

Director B.S., University of Tennessee at Martin, 1967.

•Resigned December 31,1977.
Endowed Funds

Through the years many persons have made generous gifts to establish endowed funds for various purposes. The University would like to recognize and thank them once again by publishing their names here.

Scholarships

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.

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

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

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 Chattanooga area.

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 long-time executive secretary of the Chattanooga Community Chest.

Thomas O. Duff Scholarship: Established in 1956 by Mr. Duff, business and civic leader, patron and trustee of the University, augmented at his death by memorial gifts from family and friends, with preference to be given to sons and daughters of licensed Chattanooga area pharmacists who desire to make pharmacy a career.

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

John E. and Claudia F. Gilbreath Scholarship in Memory of Katherine 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.

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

David McKendrie Key Scholarship: Established in 1955 by Mrs. 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.

Joyce Litchford Scholarships: Established in 1976 by Dr. R. Gary Litchford, a member of 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.

Winston L. Massey Scholarship: Established in 1973 by the University of Chattanooga Foundation in honor of Mr. 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.

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

Scrappy Moore Memorial Scholarship: Established in 1971 by memorial gifts from the 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.

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

Overmyer Athletic Scholarships: Established in 1969 by long-time trustee Donald H. Overmyer, UC 1930, and his wife, Ruth E. Overmyer, 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. and William E. Paschal Scholarships: Established by William Earnest Paschal, class of 1914, retired Akron rubber executive, in memory of his father, the Rev. U. G. Paschal, 18%. The first scholarship was given in 1965 for physical education majors, the second in 1967 for students participating in varsity football.

Elizabeth Bryan Patten Scholarship: Established in 1972 by Chattanooga 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.

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

Calvin U. Smith, Jr.-G. H. Miller Smith Scholarships: Established in 1965 by Mr. and Mrs. George Blackwell Smith in memory of their nephew, Calvin U. Smith, Jr. (1940-1963), and of their son, G. H.
Dr. Charles Roberts Thomas Scholarships: Established under terms of the will of Dr. Thomas, well-loved Chattanooga physician who died in 1968, to assist needy students in pre-medicine after ten years during which income is added to principal.

Vanzant-B. Warrenfels Scholarship: Established in 1976 by Mr. and Mrs. W. O. Cullen of Oxford, Ohio, in honor of Mrs. Cullen's father, Dr. Warrenfels, to be awarded to a student participating in the University Scholars program.

**Professorships**

Joseph F. Decosimo Professorship in Accounting: Established in 1977 by Mr. and Mrs. Joseph F. Decosimo, civic and business leaders long associated with The University of Tennessee at Chattanooga, to provide faculty support for the University's program in accounting.

Adolph S. Ochs Chair of Government: Established in 1925 by Mr. Ochs, distinguished owner and publisher of *The Chattanooga Times* and *The New York Times*, longtime friend of the University, father and grandfather of trustees.

Scott L. Probasco Chair of Free Enterprise: Established in 1976 by Mr. Burkett Miller, a leading Chattanooga attorney and philanthropist, in honor of a longtime friend, well respected Chattanooga citizen, and trustee of the UC Foundation, Inc., for a distinguished professorship relating to the Free Enterprise System.

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, University trustee from 1932 until his death in 1943.

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 enable a group of outstanding professors to bear a revered name and to receive yearly salary supplements.

**Supported Professorships**

Alumni Distinguished Service Professorships are awarded to outstanding faculty members on each of the five campuses of The University of Tennessee. Each faculty member, chosen on the basis of University and community service, will continue to receive the stipend as long as he or she remains at the University. These awards are made by the University of Tennessee National Alumni Association.

UC Foundation Professorships were established in 1976 to recognize outstanding younger faculty and to provide an incentive for their remaining at UTC.

The Distinguished Professor of Religious Studies is supported by the UC Foundation. This Professorship was established to ensure the continuation of the ties with the University of Chattanooga Methodist origin and heritage.

**Additional Funds**

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.

Paul W. Curtis, Jr. Awards: Endowed in 1948 by Mr. and Mrs. Paul W. Curtis in memory of their son, class of 1933, who was killed in action in World War II, for outstanding students in engineering.

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 solely for the benefit of the chemistry department of The University of Tennessee at Chattanooga in such manner and amounts as the administrative department head and the Chancellor of the University may in their discretion from time to time determine.

Hartung Fund for Nursing Education: Established in 1969 by Dr. and Mrs. Carl A. Hartung, UC graduates of 1929 and 1931 respectively, with income to be expended in support of 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, UC student who died in 1944 after a long illness.

Hinds Memorial Book Fund: Established in 1921 by Mrs. Kate Hinds Steele and Mrs. Mary Bashie Hinds Martin in memory of their father, J.E.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 University of Tennessee National Alumni Association and other friends in honor of the retiring UT president and his wife, for the purchase of books for the UTC library.

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, long-time directors of the Bonny Oaks School, to bring to the campus each year an outstanding speaker who is an authority in some branch of the humanities.

W. R. Long Fund: Established through a bequest from Mr. W. R. Long's estate in 1961 to be added to the unrestricted portion of the endowment of the University of Chattanooga Foundation.
Dr. Robert C. Maxwell Fund: Established in 1974 by a bequest from the estate of Dr. Robert C. Maxwell to The University of Tennessee at Chattanooga for use in building dormitories as well as facilities for the football program.

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 graduating with a major in management.

Terrell Louise Tatum Memorial Fund: Established in 1968 by the University in memory of its Cuerry Professor of Spanish who served her Alma Mater for 43 years, for the purchase of books and teaching materials for the department of modern languages.

Terrell Louise Tatum Spanish Award: Endowed in 1964 by an anonymous donor to honor UC’s Cuerry Professor of Spanish by awarding a yearly prize bearing her name to the outstanding senior majoring in Spanish.

Edgar B. Tolson Memorial Book Fund: Established in 1942 with the residue of Mr. Tolson’s estate, authorized by Wilfred O. Stout, Sr. of Minneapolis, executor, for the purchase of books of history and philosophy.

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 generous gift from the Hartselle, Alabama, physician who took his premedicine work at UC from 1954-1956 and his M.D. from UT in 1960.

Lewis B. Headrick Memorial Student Loan Fund: Established in 1966 by family, friends, and colleagues of Dr. 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 who took her B.S. degree in 1925, taught at several colleges, and lived in Lorain, Ohio, at the time of her death at 86 on October 10, 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, UC trustee from 1920 until his death in 1942.

Bequests

The University also wishes to acknowledge with gratitude the many unrestricted bequests it has received throughout the years. Because they may be applied where the need is greatest, they are of inestimable value. Among generous donors of more recent years:

### Summary of Degrees Conferred

#### May 1, 1977

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<th>Men</th>
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<tr>
<td>Bachelor of Science</td>
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<tr>
<td>Bachelor of Science in Engineering</td>
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<tr>
<td>Bachelor of Science in Nursing</td>
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<td>Master of Business Administration</td>
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### Summary of Credit Registrations

#### Fall Semester 1977

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<th>Category</th>
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<td><strong>Undergraduates</strong></td>
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<tr>
<td>Full-time students</td>
<td>2013</td>
<td>1811</td>
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<td>Part-time students</td>
<td>792</td>
<td>748</td>
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<tr>
<td>Total undergraduates</td>
<td>2805</td>
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<td><strong>Postbaccalaureates</strong></td>
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<tr>
<td>Full-time students</td>
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<tr>
<td>Part-time students</td>
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<td>128</td>
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<td>Total postbaccalaureates</td>
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<td><strong>Graduates</strong></td>
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<tr>
<td>Full-time students</td>
<td>45</td>
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<tr>
<td>Part-time students</td>
<td>365</td>
<td>512</td>
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<tr>
<td>Total graduates</td>
<td>410</td>
<td>547</td>
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<tr>
<td>Total, fall semester 1977</td>
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