announcements
1979-1981

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UNDERGRADUATE

VOL. LXIII - 1979-1981

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Graduate Catalog is published under separate cover and may be obtained from the Graduate School Office.

Published by
TENNESSEE STATE UNIVERSITY
3500 Centennial Boulevard,
Nashville, Tennessee 37203

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HOW TO USE THIS CATALOG

The Tennessee State University Catalog is the general information publication of the University Community. It is intended to provide information for students and other persons interested in the academic programs and organizations of TSU. In order to understand the activities and programs of the institution it is important for students to know how to use this catalog effectively.

Students should thoroughly familiarize themselves with the General Information section of the catalog. This section answers questions concerning such diverse needs as locations of buildings and other facilities on campus, requirements, for admission and graduation, financial aid information, students services, housing, regulations, etc.

Students who have already made decisions concerning what area of study they are interested in, such as English, Mathematics, Business, Education, Engineering or some other field, should turn to the section of the Catalog dealing with their particular interest for information about courses and degree requirements. The reader will find that schools are arranged in alphabetical order, with course listings by department and course number.

Students who have questions concerning their academic progress, curricula or academic standing should consult their advisors or their academic deans. Those students with specific questions concerning specialized areas of study should consult with each specific department.

Graduate students interested in graduate work should refer to the Graduate Catalog, or inquire at the Office of the Dean, or the Graduate School.

Students' guides to the catalog are the index, the table of contents, and the glossary. Major events, holidays, and semester schedules are listed in the University Calendar.

GLOSSARY

Accreditation: Recognition granted schools and colleges upon examination by groups of visiting professionals based upon objective standards developed by interested professional agencies. An accredited school or college has measured up to the standards of quality imposed by professional groups and accrediting agencies.

Curriculum: The total program of courses required for a degree in a particular subject.

Credit Hours: The number of hours a course meets each week determines its worth in credit hours.

Elective: A course that is accepted toward fulfillment of credit for a degree but is not required for that degree. So termed because a student "elects" or chooses to take the course.

Evaluation: Any credit for academic work completed at another institution and transferred to TSU must be evaluated in terms of the requirements of TSU. Such evaluation is done by the Office of Admissions.

Full-time Students: A student who registers for 12 or more credits each semester.

Grade-point Average: A student's grade-point average may be computed numerically by dividing the number of quality points earned by the number of hours of coursework in which he is enrolled over any given period.

Major: A major is the academic area in which one specializes. A new student may choose a major at once or be classified as "undecided" until he is able to decide on the major he desires.

Matriculation: Enrollment in the University or in a particular college or school. This includes payment of fees.

Minor: A minor is the academic area in which one places special emphasis as a secondary specialization.

Non-resident: A student who is not a resident of the State of Tennessee.

Part-time Student: A student who registers for less than 12 credit hours a semester.

Prerequisite: Certain courses must be completed before others may be attempted. Such first courses are said to be prerequisites for following courses in the same or similar areas. It is the student's responsibility to check for prerequisites in the current bulletin.

Semester Hour of Credit: The semester hour is a unit of academic credit. A student, for example, must earn 132 units or semester hours in order to graduate. The number of hours earned in a given quarter is the measure of a student's academic load. A normal load ranges from 12 to 18 semester hours of work. The hours of credit of various courses are indicated in the catalog.

Transcript of Credit: A certified copy of credits which a student has earned in high school or in other colleges attended. Ths submission of a transcript is one of the most important prerequisites for admission to the University.

CORRESPONDENCE DIRECTORY

Applications, Admission and Enrollment
Grey Hall
Acting Dean of Admissions & Records
320-3420

Alumni Correspondence
Leon King, Coordinator
Goodwill Manor
320-3326

Athletics
Samuel Whitmon, Director
Kean Little Garden
320-3521

Student Orientation
Mildred Crouch
Student Development Services
320-3626

Men's Dormitories
Robert N. Murrell
Student Union
320-3204

Women's Dormitories
Delores Lewis
Student Union
320-3209

Health Services
Dr. Carr A. Treherne
Director
320-3671

Fees and Business Matters
E. J. Junior, Jr.
Vice President, Business Affairs
320-3450

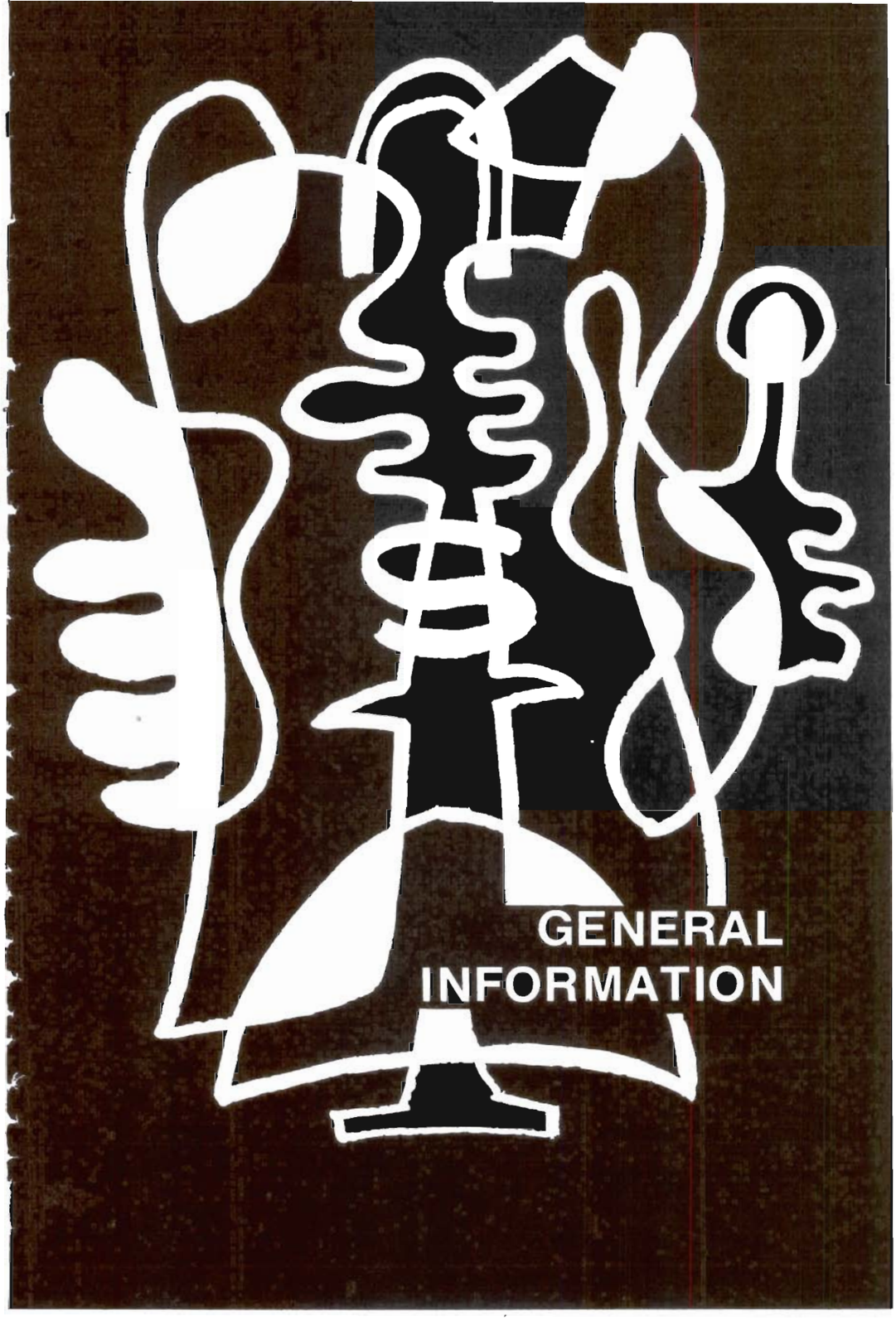
Transcripts of Records
Frank Heard
Registrar
320-3420

Veterans Affairs Benefits
John R. Floyd
Office of Veterans Affairs
320-3429

Graduate School
Dr. James Reeves
Dean of the Graduate School
320-3491-3492

Continuing Education
Dr. John Crothers
Vice President, Public Service Extention and Continuing Education
Evening & Saturday Courses
251-1354

Air Force ROTC Programs
Lt. Col. Arthur Fox
Aerospace Studies Professor
320-3710



GENERAL INFORMATION

THE PRESIDENT'S STATEMENT

We here at the University are pleased that you have expressed interest in Tennessee State University. Through this Catalog we trust that we have answered some of your questions, giving you an introduction to our programs, opportunities and our University Community. Should you desire to do so, visit our campus where you may become better acquainted with the University.

As a Land-Grant, comprehensive, State-supported institution of higher education, we are endeavoring to advance both the concept and the reality of the kind of broad-based institution dedicated to assisting students in their personal development. We continually strive to produce men and women of highly-trained intelligence, professional capability and integrity, with a commitment to personal and social values—a commitment that actually does make a difference to those around them. The achievements of our students compare favorably with those across the country.

Tennessee State University enjoys the status of an urban University, ideally located in a growing metropolitan area. This environment allows for the development of new dimensions in learning. You will find us among those institutions concerned, on both the national and international scale, with the world's knowledge as curriculum, the world's problems as responsibilities, and a world community of scholars and students working positively together. We welcome all those who are willing to share our dedication to the development of the individual in a strong institution of higher education.

Frederick S. Humphries
President

THE UNIVERSITY
HISTORICAL STATEMENT

The present-day Tennessee State University exists as a result of the merger on July 1, 1979 of the former Tennessee State University and the University of Tennessee at Nashville.

Through successive stages Tennessee State University has developed from a normal school to its current status. By virtue of a 1909 act of the General Assembly, the Agricultural and Industrial State Normal School was created, along with two other normal schools in the State and began serving students on June 19, 1912.

In 1922, the institution was raised to the status of a four-year teachers' college and was empowered to grant the bachelor's degree. The first degrees were granted in June, 1924. During the same year, the institution became known as the Agricultural and Industrial State Normal College; and in 1927, "Normal" was dropped from the name of the College.

The General Assembly of 1941 authorized the State Board of Education to upgrade substantially the educational program of the College which included the establishment of graduate studies leading to the master's degree. Graduate curricula were first offered in several branches of teacher education. The first master's degree was awarded by the College in June, 1944.

Accreditation of the institution by the Southern Association of Colleges and Schools was first obtained in 1946 and reaffirmed in 1969.

In August, 1951, the institution was granted university status by approval of the State Board of Education. The reorganization of the institution's educational program included the establishment of the Graduate School, the School of Arts and Sciences, the School of Education, and the School of Engineering.

Provisions were also made for the later addition of other schools in agriculture, business and home economics, respectively.

The University was elevated to a full fledged Land-Grant University by the State Board of Education in August 1958. The Land-Grant University program, as approved by the State Board of Education, included: the School of Agriculture and Home Economics, the Graduate School, the Division of Business, the Division of Extension and Continuing Education, and the Department of Aerospace Studies.

A School of Allied Health Professions was authorized in 1974, from which the School of Nursing was created in 1979. Meanwhile, the School of Business was established in 1974.

Begun initially in 1947 as an extension center of the University of Tennessee, which is based in Knoxville, the University of Tennessee at Nashville only offered one year of extension credit until 1960, when it was empowered by the Board of Trustees of the University of Tennessee to offer two years of resident credit. Authorization was granted to extend this to three years of resident credit in 1963, even though degrees were awarded by the Knoxville unit.

To more fully realize its commitment as a full-function evening university, the Center at Nashville became a full-fledged, four-year, degree-

granting institution in 1971 upon successfully meeting the requirements for accreditation of the Southern Association of Colleges and Schools. During the same year, the General Assembly sanctioned the institution as a bona fide campus of the University of Tennessee, and the new university occupied its quarters in the then recently completed building at the corner of Tenth and Charlotte.

It was the erection of the above-mentioned building which gave rise to a decade-long litigation to "dismantle the dual system" of higher education in Tennessee which culminated in the court ordered merger by Judge Frank Gray in February, 1977.

The missions of the two universities, Tennessee State University and the University of Tennessee at Nashville, were highly compatible due to their historic backgrounds or connection to a land-grant institution.

Purpose

As a land-grant institution, Tennessee State University has as its mandates instruction, research and service. The University contributes to the advancement of all who seek its services and can profit from its broad educational programs. Tennessee State University stimulates it students and the citizens of Tennessee to reach their full potential through respect for inquiry and appreciation of their cultural traditions, imbues them with the desire to develop basic knowledges and skills that will enable them to succeed in an ever changing world, develops the leadership needed for advancement of society, enlarges the major bodies of knowledge, and applies that knowledge toward the improvement of the quality of life for citizens of the state and the nation.

The University aims:

1. To maintain high standards of instruction in general education, in continuing education, and in the curricula and field of specialization through which degree programs are offered.
2. To encourage faculty and students to engage in research, which advances knowledge in the areas with which the various academic departments and divisions are concerned.
3. To continue expanding its role as a servant and leader of the citizens of the State by disseminating knowledge and providing a broad variety of education services, both credit and non-credit, to the public.
4. To identify and develop the talents of all students who have the potential for college work, including those whose educational, socio-economic, and cultural disadvantages have prevented their being prepared fully to pursue college work successfully without special assistance.
5. To provide a full array of degree programs and services especially tailored to the needs and convenience of college students of all ages, including a full array of degree programs and services for the working adults of the mid-state area.
6. To provide an intellectual atmosphere which stimulates students

and faculty to apply knowledge and skills toward the improvement of humanity and the society.

The University's objectives mirror these general and specific purposes. They also reflect the University's priorities. Tennessee State University projects itself to the students, faculty, alumni, and to the citizens of the State through the motto: ""Think, Work, Serve."

The Campuses

The University enjoys two campus sites. Its central campus is located between 28th and 39th Avenues, North and is bounded by the Cumberland River on the north and Albion Street on the south, at 3500 Centennial Boulevard. Its sixty-five buildings, parking lots, outdoor facilities, pasture and farm lands occupy some 450 acres.

The downtown campus is housed in a large modern building which is located at Tenth and Charlotte Avenues with adjacent parking facilities.

UNIVERSITY POLICY ON EQUAL OPPORTUNITY AFFIRMATIVE ACTION, AND COMPLIANCE WITH TITLE IX

Tennessee State University is an Affirmative Action University. Applicants and candidates will be considered for program participation without discrimination for any non-merit reason such as race, color, national origin, sex, religion, age, or handicap. Further, it is the policy of Tennessee State University not to discriminate on the basis of sex in the education programs or activities which it operates, including employment therein and the admission of students thereto; and Tennessee State University is required by Title IX of the Education Amendments of 1972, and regulations issued pursuant thereto (45 C.F.R. Part 86) [and by Sections 799A and 845 of the Public Health Service Act, and regulations issued pursuant thereto] not to discriminate in such manner. Inquiries concerning the application of the Acts and the regulations to Tennessee State University, may be referred to:

Mr. Sterlin Adams
Special Assistant to the President
Tennessee State University
Nashville, Tennessee 37203

PROGRAM ACCREDITATIONS
(As of June, 1978)

	Year
The Council of Social Work Education Undergraduate	1971
NABTE (NCATE) Business Teacher Education	
National Council for Accreditation of Teacher Education (Undergraduate)	1968
National Association of Schools of Music	1962
Southern Association of Colleges and Schools	1946
Engineer's Council for Professional Development	1972
American Home Economics Association	1973
Tennessee Board of Nursing	1973
American Dental Association Commission on Accreditation of Dental and Dental Auxiliary Educational Programs	1973
Reaccreditation by SACS	1969
National League of Nursing	1975
National Collegiate Athletic Association	
National University Extension Association	1970
(FAA) Federal Aviation Agency	

MAJOR BUILDINGS

The **Administration Building** is located on Centennial Boulevard between 35th and 36th Avenues, on the south side of the campus. It contains the chief administrative offices, the computer center, the general auditorium, which accommodates approximately one thousand persons, the little theatre for student productions in drama, and a swimming pool. Originally occupied in 1933, renovated and enlarged in 1967. This building a new administration building will be constructed on the site of the Old Hale Hall Dormitory.

The **Harned Hall of Science** erected in 1927, is located on the north campus, east of the library. It provides classrooms, lecture auditoriums, laboratories, staff offices and other facilities for instruction and research in the biological sciences.

The **Industrial Arts Building** is located on the south campus at Centennial Boulevard and 35th Avenue, it was renovated in 1975. It contains a variety of laboratories, shops, and classrooms for metal work, pluming, welding, refrigeration, radio and electricity. Instructional staff offices and the main office for the departments of Industrial Arts and Technology and Architectural Engineering are also located in this building.

The **Queen E. Washington Health Service Building,** located on the north campus west of Hankal Hall, has facilities for complete examination and limited treatment for students, it contains an infirmary, an out-patient department, a clinic, and two wards for confined students, which will accommodate sixteen (16) female and sixteen (16) male students.

The **Marie Brooks Strange Music Building,** erected in 1968, is located on the south campus. It contains many facilities designed to provide instruction in music which include classrooms, listening laboratories, studios for piano and instrumentation, a recital hall seating 226, and faculty offices. The office of the Music Department head is housed in this building.

The **Walter S. Davids Home Economics and Nursing Education Complex** is located on the northeast campus on Centennial Boulevard across from 31st Avenue. It is a three story air conditioned building that contains classrooms and laboratories for teaching and research in Home Economics and Nursing. The main offices of the departments are located in this complex.

Goodwill Manor is a two story colonial type structure that was formerly used as the University President's Residence. This building has undergone major repairs and is presently used as an office building for Alumni Affairs and Public Relations. Plans are being made to renovate the structure and maintain it as a historical university landmark.

The **Health, Physical Education, Athletic and Convocation Complex,** scheduled for completion in early 1980, is located on the north side of the campus east of the Edward S. Temple Track. This new facility contains a 10,000 seat basketball and convocation arena, an indoor track, handball courts, dance studio, offices, classrooms, and a thirty-five (35) meter swimming pool. The main offices of the Physical Education and Athletics Departments will be housed in this complex. Exterior accommodations will include tennis and handball courts, playing fields, baseball diamond, and parking for 2,000 cars.

Frank G. Clement Hall is located on 35th Avenue, south of the Brown-Daniel Library. This structure was formerly used as a men's residence hall. It was renovated in 1969 and acts as a classroom/laboratory building containing the department of Dental Hygiene and the University of Tennessee School of Social Work.

The **Jim Nance McCord Engineering Building,** erected in 1950, is located on 35th Avenue, across from the Brown-Daniel Library. Its laboratories contain equipment for instruction and research in mechanics, combustion, electronics, hydraulics, and the machine shop; other accommodations include classrooms and offices. The office of the Dean of School of Engineering and Technology and the main offices of the departments of Civil Engineering, Electrical Engineering, and Mechanical Engineering are located in this building. A new two story Engineering Building to be located west of the Frank Young Poultry Plant, will be under construction during 1980.

The **R. E. Clay Education Building,** erected in 1958, is located on 35th Avenue, south of the Engineering Building. This building is equipped with classrooms and special laboratories for Teacher Education, Psychology, and Reading. The main offices of the departments of Administration, Curriculum, and Instruction, Psychology, and Teacher Education are housed in this building. It also houses the office of the Dean of the School of Education.

The **Martha M. Brown—Lois H. Daniel Library** is located on the south campus at Centennial Boulevard and 35th Avenue, just across from the Engineering and Education Buildings.

The ultramodern Library is a three-story contemporary structure constructed of warmtone architectural concrete and coarse aggregate Tennessee River gravel and has cantilevered second and third floors.

The recently completed main Library houses up to 230,000 volumes and containes over 21,672 bound periodicals. Built in 1977 at a cost of $2,400,000.00, the Library has 82,000 square feet of space with special study and research facilities for faculty and graduate students. A unique special collections room houses the Library's historical archives, theses and special collections.

The **W. W. Lawson Agriculture Building** is located on the north side of the campus adjacent to the University Agricultural Laboratories. The building contains classrooms and laboratories equipped for teaching and research in scientific agriculture.

The **Student Union Building,** erected in 1959 and added to in 1968, houses the offices of the Vice President for Student Affairs, Student Government Association, and other student organizations. Facilities included in the Student Union Building are lounges, conference rooms, a game room, a grill and fountain, the University Bookstore, and Post Office. It also contains the main cafeteria for the University and a faculty/staff cafeteria.

The **Lewis R. Holland School of Business Building** is located on the southwest side of the campus. This building contains classrooms, lecture halls, faculty offices, the offices of the Dean of the School of Business and the main office of the departments of Business Administration and Business Education.

The **Physics and Math Building,** completed in the fall of 1965, is located west of the Student Union Building. It houses undergraduates and research laboratories, classrooms, a lecture hall, the educational computer center, faculty offices, and the office of the head of the department of Physics and Math.

The **Jane E. Elliott Hall (Women's Building)** is located west of the Old Library on the north side of the campus. The building contains laboratories, lecture rooms, faculty offices, work rooms, and studios for fine arts and crafts. The main offices of the departments of Art, Social Welfare, and Sociology are housed in this building as is the office of the Dean of Extension and Continuing Education.

The **Hubert B. Crouch Hall (Graduate School)** located directly west of the Administration Building contains classrooms, laboratories, faculty offices, and offices for the Dean of the Graduate School of Arts and Sciences. Also located in this building are the main offices for the departments of Communication, Government and Public Affairs, History and Georgraphy, and Modern Foreign Languages.

STUDENT PERSONNEL SERVICES

The Student Personnel Services program aims to assist the student in developing the skills, attitudes, understandings, and insights which will assure full expression of his powers as a whole, dynamic person.

The major responsibility for administration of Student Personnel Services resides with the Vice President for Student Affairs and the Council on Student Affairs. The Council is composed of the Directors of Athletics, Financial Aid, Health Services, Counseling Center, Student Activities, Career Counseling, Cooperative Education, Placement, and Personnel Deans.

LIVING ACCOMMODATIONS ON CAMPUS

The University provides six residence halls on campus—three for men and three for women. These residence halls are designed to provide personal, social and intellectual companionship for the student. Each resident is held responsible for knowing and abiding by the rules and regulations for residence hall living.

All the residence halls are staffed with a Head Resident Counselor and Graduate Resident Assistant who are responsible for the operation of the hall under the supervision of the Student Personnel Deans. Telephone service is available in each of the student rooms.

ROOM AND BOARD

Students who live in residence halls are expected to take their meals in the University Cafeteria. Charges for room and board are made on a semester basis and are payable at the beginning of each semester. A charge will be made for the replacement of a meal card in the event it is lost, misplaced or stolen during the semester. This charge will be made on the pro rata basis for the remaining days of the semester.

ROOM RESERVATION

A room reservation fee is required to reserve a room in one of the residence halls. This reservation fee is not refundable, but it will be credited toward the student's room rent at the time of registration. Students who reserve a room and fail to occupy it by the first day of registration for the semester or summer session will forfeit their reservation, unless the Dean of Men or Dean of Women (whichever is appropriate) is notified by the student that he or she will be late occupying the room. Room reservation contracts will be negotiated through the Dean of Men for men and the Dean of Women for women.

Only students who have been admitted to the University may reserve a room in one of the residence halls.

FOOD SERVICE

The University provides food service for students. Three well-balanced meals are served each day, Mondays through Fridays, and two meals are served on Saturdays and Sundays. The University Cafeteria, located in the College Union seats 1000 students. There is a Coffee Shop on the ground floor of the Union and a smaller cafeteria in Wilson Hall used for special occasions.

RESIDENCE HALLS FOR MEN

Lena B. Watson Residence Center for freshman men—a modern six-story, air-conditioned structure containing 178 student rooms, an apartment for the Head Resident Counselor, a lounge, a recreation study area, laundry and trunk-storage room.

Henry Allen Boyd Hall for sophomore and junior men—a modern six-story air-conditioned structure containing 158 student rooms, an apartment for the Head Resident Counselor, a lounge, recreation-study area and trunk-storage room.

Merl R. Eppse Hall for upperclassmen and graduate students—a six-story, air-conditioned structure containing 134 student rooms, an apartment for the Head Resident Counselor, lounge, recreation-study area, laundry and trunk-storage room.

RESIDENCE HALLS FOR WOMEN

Harriett Hodgkins Hale Hall is the newest of the residences for women. It houses upperclass and graduate women. It is a six-story air-conditioned structure with elevator and telephone services. Each room is semi-private; the building is equipped with lounges, a beauty salon, laundry room, trunk-storage room and an apartment for the Head Resident Counselor.

Edna Rose Hankal Hall is the oldest residence hall for women. It houses sophomore women. It is a three-story brick structure, equipped with a formal lounge, trunk-storage room, laundry, and an apartment for the Head Resident Counselor.

Mary Wilson Hall is an air-conditioned, six-story building that houses 525 freshman women. This residence hall is equipped with a lounge on each floor and a public lounge on the first floor. There are laundry rooms on each floor, a cafeteria-kitchen, trunk-storage room on the ground floor and an apartment for the Head Resident Counselor.

MAJOR ADVISER

Upon being admitted to the University, each student is assigned to a faculty member, who serves as a major adviser in the department in which the student plans to pursue a Program of Study. The major adviser will acquaint the student with requirements of the University, the school, and department, and will help the student to make long range plans toward a degree objective.

The responsibility for the selection of courses rests, in the final analysis upon the student. Similarly, it is the primary duty of the student to pursue courses in their proper order to meet the requirement for graduation. During each semester, the student is urged to confer with the major adviser concerning choices of courses. The student must obtain written approval from the adviser on all courses to be pursued.

In solving specific problems, major advisers assist students by referral to services provided by other appropriate offices.

STUDENT DEVELOPMENT SERVICES

Student Development Services are designed to help all students grow in self-understanding so that they may use their assets more effectively and

plan attainable, meaningful goals for the future. These services are available to each student free-of-charge at both the Main Campus and the Downtown Campus. Included in these services are:

Orientation/Adivsement for New Students—Orientation/advisement for new students is held during the Summer, Fall, and Spring. Students are encouraged to attend a Pre-Fall orientation/advisement program if possible. Various aspects of the program continue throughout the freshman year. Each student's progress is supervised by orientation class instructors and departmental advisors. The goal is to help new students take an in-depth look at themselves, assessing their strengths and weaknesses with the aid of placement tests and counseling.

Peer-Tutorial Services—The Peer-Tutorial Program is designed to give academic assistance to students desiring to improve their scholastic performance. The program embraces the concept "The Academic Need for One is the Concern of All" and is individualized, serving each student based on his/her academic need.

Counseling Center—Counseling is available to each student regarding Vocational, Educational and Personal problems. Professional counselors meet with students on a voluntary basis and students need not be referred by anyone in order to receive counseling. Conversations are kept confidential. Appointments should be made with the receptionist at the Counseling Center, however, students will also be seen on a walk-in basis.

Services for Handicapped Students—The goal of this service is to assist handicapped students in functioning within the university setting and to enable them to participate fully in all TSU academic, cultural, and social activities. This service also functions to identify and aid in the removal of physical barriers that prevent free and open access to university facilities. A Vocational Rehabilitation Counselor is available to provide individualized services in the areas of Orientation/Advisement, Mobility, Admissions, Registration, Parking, Housing, Campus Activities, and Course Scheduling.

Special Services—Upward Bound and Special Services Projects at Tennessee State University are federally funded pre-college and college programs, respectfully designed to provide cultural enrichment and developmental services and programs to a target population of students; to assist them in developing creative thinking, effective expression, good study habits and positive attitudes toward learning. The projects assist students in developing goals and skills necessary to obtain entrance and to achieve success in post secondary training programs and in institutions of higher learning.

Testing Center—Comprehensive test services are offered to TSU students, Staff, and faculty, as well as to the general public. The Testing Staff

administers and scores a wide range of standardized tests related to Counseling, Advanced Placement, Undergraduate Admissions, Graduate Admission, Proficiency Tests, High School Equivalency Tests and College Credit by examination.

STUDENT ORGANIZATIONS

Students are encouraged to participate in co-curricular activities that may serve to develop their special talents, deepen their appreciation for fellowship and cooperation, or enlarge their individual capacities for leadership.

Freshmen are cautioned to temper or limit their co-curricular or organizational activity during the first semester because of the demanding academic and social adjustments that have to be made during this period. However, two honor societies—Men's Scholastic and Women's Scholastic—are designed for freshmen who earn a 3.03 or above cumulative average during their first year.

There are 81 University co-curricular organizations, departmental clubs, guilds, fraternities, sororities, honor societies, drama and music groups that are open to all students or students who are majoring in a specific discipline. Of the total co-curricular opportunities available, 18 are national honor societies, 35 are departmental clubs, and 11 have general, cultural, civic, or political focus. Three of the four musical organizations—String Club, University Choir, and Marching Band—are open to all students. Each of the eight Greek letter fraternities and sororities has a pledge group for inculcating its members. One honor society, Alpha Kappa Mu, is open to all students of junior or senior class standing who have earned a cumulative average or 3.30 or above. (See Student Handbook).

INTERCOLLEGIATE ATHLETICS

The University recognizes the need for a well-rounded program of athletics for all students. In this regard, Tennessee State University competes on an intercollegiate basis in football, basketball, baseball, soccer, track, swimming, tennis, and golf. It also provides a varsity program for women's track as well as basketball, under the sponsorship of the Tennessee College Women's Sports Federation.

The University is a member of the National Collegiate Athletic Association. Association for Intercollegiate Athletic for Women and the Amateur Athletic Union.

THE STUDENT HANDBOOK

The Student Handbook is a means of facilitating communication among the members of the University. It serves as a source of necessary and useful information which will help the student understand his privileges, rights, and responsibilities pertaining to student affairs. The Handbook contributes to the high level of cooperative and constructive

relationships between students and various departments of the University.

TRAFFIC AND PARKING REGULATIONS

Any student operating a motor vehicle on the campus is required to register this vehicle each school year with the Campus Security Office. The University motor vehicle registration sticker which is issued must be displayed on the left side of the rear bumper.

OFFICE OF DEVELOPMENT

The development program consists of (1) alumni relations, (2) public relations, (3) development services and (4) research. The purpose of the office is to assist the administration in interpreting the role and mission of the institution to the public and to assist the faculty in securing funds needed for special programs.

ALUMNI RELATIONS

The Office of Alumni Relations is designed to keep graduates and former students informed of the University's Programs and Activities. The Alumni Relations office also affords an effective Channel for the alumni to present useful ideas, offers opportunity to participate in the life of the University, and provides an orderly procedure for alumni to share in improving and promoting the University.

BUREAU OF PUBLIC RELATIONS

The Public Relations programs have been designed to inform the different publics about programs and activities of the University. A multiplicity of techniques and methods consistent with mass media requirements are used by the staff to communicate with its various publics.

Consistent with the office's institutional responsibility, there are three essential elements which the office performs in dispensing its duties:

—Preparing and disseminating news and feature materials for information and interpretation, to newspapers, magazines, radio and television stations, organizations and other institutions of higher education. At times specific hometown releases are done on faculty, staff and students, and also news is disseminated to designated interest groups.

—Serving as liaison and facilitator for requests from a variety of sources.

—Representing the President as the official spokesman to the media and the various publics.

News about activities, programs and individuals are announced to the public through materials prepared and distributed by the Office of Public Relations.

As publisher, the Office of Public Relations produces and distributes a variety of printed materials.

In the area of photography and graphics, the Office of Public Relations facilitates and handles all official photographic and graphic needs of the University.

RESEARCH

Research is an essential component of the mission of Tennessee State University, in addition to instruction and service. One of the aims of the University is to encourage faculty and students to engage in research and other scholarly endeavors in the subject matter areas with which the various departments and divisions are concerned.

Specific research emphases are planned in the areas of agriculture, energy, health, environment, and limited resource people.

Organized research at Tennessee State University includes applied, demonstrational and basic research activities and is defined as those research activities carried on by faculty and staff members who have their primary basis of support from outside sponsoring agencies. In order for the organized research program to relate to mission, goals, and long-range plans of the University, the Office of Research, Planning and Development will be responsible for the administration and coordination of these activities.

HONORS, SCHOLARSHIPS AND AWARDS

The Hazael Edward Welton Scholarship award is given by the Tennessee State University Foundation to outstanding high school graduates on a competitive basis. Students receiving the awards upon graduation from high school may be continued for four years if academic standards are maintained.

CAREER DEVELOPMENT CENTER

The Career Development Center is a centralized service responsible to assist students and graduates of the University with all phases of their career development, from reaffirming their choice of major and finding a part-time job to planning long range career goals and obtaining full-time employment after graduation.

In an effort to achieve these objectives several options are available to students and cooperating employers who utilize the Center:

Cooperative Education Program—It is a plan where students alternate between semesters of paid employment in their major field and semesters of study. This program is open to all majors in all disciplines offered at the University.

Graduating Students and Alumni—Graduating seniors and alumni desiring to utilize the services are requested to establish placement credentials consisting of resume and recommendations. These are avail-

able to recruiters at the time of the on-campus interview. In addition, a referral service of interested and qualified candidates is available to employers desiring to list employment vacancies with the office.

Student Employment—Each year students are interested in summer seasonal type employment while they are not enrolled at the University. The various types of employment available consists of: regular summer, career related summer and internship type employment. In addition, part-time employment off campus is available while the student is enrolled at the University.

COOPERATIVE EDUCATION

Cooperative Education in institutions of higher education is that kind of career education that provides an opportunity for full-time students to alternate periods of academic study with periods of off-campus employment. This program is open to majors in all disciplines at the University commencing at the sophomore level.

Cooperative education programs bring business, industry, and government into direct cooperation with students and educators. It provides for the institution of higher education a more effective utilization of its facilities and extends academic resources beyond the campus. It provides for the employer a sound, economical source of skilled manpower. The Cooperative Education Program is administered out of the Career Development Center.

INTERNATIONAL STUDENT SERVICES

The International Student Services program at Tennessee State University provides the technical assistance to all foreign students in connection with their status in the United States and their needed communication with the United States Immigration Service. Also, the student is assisted with all official comunications to their respective home governments including clearance for foreign currency-exchange. In addition, the foreign student may utilize the advisor function of the program to assist them in their cultural assimilation into the life style they experience in the United States and to assist them with other needs they may have, peculiar to their status.

GENERAL FEE INFORMATION

Tennessee State University reserves the right to increase the charges listed herein or to add new ones whenever such increases or additions become necessary.

The listing of any fee or incidental charges in this catalog does in no way constitute a contract between the University and the student. As a condition of registration each student must pay the fee in effect at the time he registers.

PAYMENT OF FEES

All fees must be paid at registration. An exception to this is when student financial aid is earned on a deferred basis and is sufficient to cover total charges per semester or if the student is sponsored by a recognized agency or organization. Scholarship students should check with their sponsors to ascertain that proper authorization has been forwarded to the Business Office prior to the date of registration. A student is officially admitted to class only when the teacher is presented a schedule card which has been validated by the Office of Admissions and the Business Office.

All money orders, cashier checks or certified checks should include the student's social security number and should be made payable to Tennessee State University and sent to the Vice President for Business Affairs. Tennessee State University, 3500 Centennial Blvd., Nashville, Tennessee 37203.

SENDING OF MONIES THROUGH THE MAIL

The University assumes no responsibility for monies lost through the mail. Students are advised not to send cash and all monies should be sent to the Vice President for Business Affairs, Tennessee State University, 3500 Centennial Blvd., Nashville, Tennessee 37203.

FINANCIAL REGULATIONS

No student will be allowed to register, obtain diploma, degree or transcript until all accounts are settled. A student will not be officially enrolled until all fees are cleared through the Business Office.

REFUND PROCEDURES

Refund procedures for maintenance fees, out of state tuition, and debt service fees are as follows:

A. Change of a student's status which requires a refund:

1. Change in a full-time student's schedule which results in the reclassification to a part-time student, or
2. Change in a part-time student's schedule which results in a class load of fewer hours.

B. Situations which require a refund:

1. Dropping a course or courses,
2. Withdrawing from the University,
3. Cancellation of a class by the University, or
4. Death of the student.

C. Refund Procedures:
   1. 75% of fees will be refunded for drops or withdrawals within 14 calendar days after the first official day of classes or within an equivalent period for a short-term course. No refund will be made thereafter.
   2. 100% of fees will be refunded for classes canceled by the institution.
   3. 100% fees will be refunded for drops or withdrawals prior to official registration for the regular academic term and prior to the beginning of summer term and intersession classes.
   4. 100% of fees will be refunded in case of death.

D. Refund of Residence Hall Rent. Refunds of residence hall rent after registration will be prorated on a weekly basis when a student is forced to withdraw from the residence hall:
   1. Because of medical reasons confirmed in writing by a licensed physician, or
   2. At the request of the institution. Full refund will be made in the case of death. No refund will be made other than under the above conditions.

E. Refund of Residence Hall Reservation and Breakage Deposits. Full deposit will be refunded if:
   1. The University is notified a minimum of 14 calendar days prior to the first official day of registration,
   2. The student is prevented from entering the University because of medical reasons confirmed in writing by a licensed physician, or
   3. Residence hall space is not available.

Full refund will be made in the case of death.

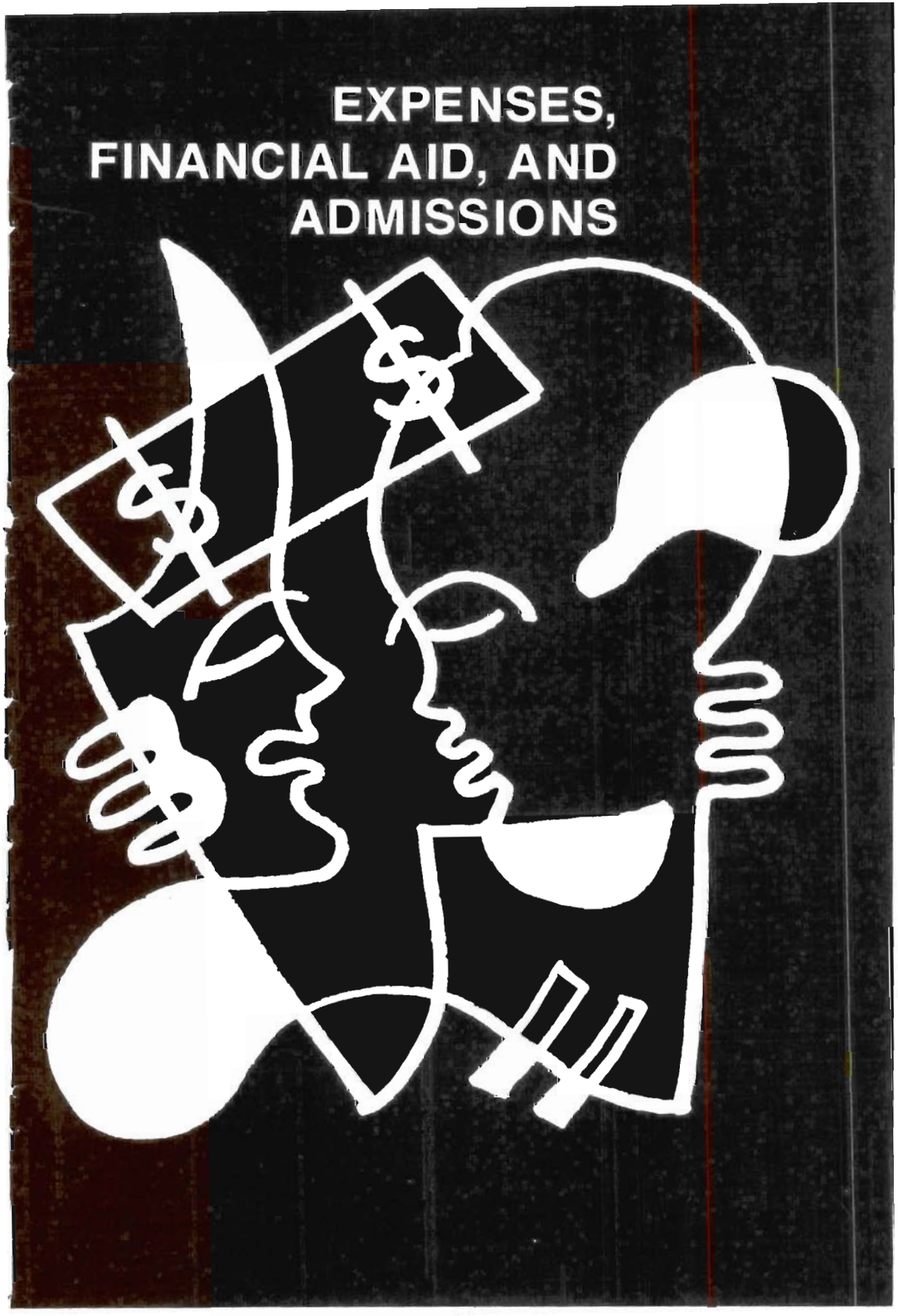
DISABLED PERSONS AND ELDERLY PERSONS

Disabled persons suffering from a permanent total disability which totally incapacitates such person from working at an occupation which brings him an income and persons sixty (60) years of age or older, who is domiciled in Tennessee, may audit courses without paying tuition charges, maintenance fees, student activity fees, or registration fees; However, this privilege may be limited or denied on an individual classroom basis according to space availability. Prior to admittance, the University may require an affidavit or certificate from a physician or an agency charged with compensating the disabled person or adjudicating the permanent total disability of the person requesting admittance to classes.

Subject to the same terms and conditions as provided above disabled persons as defined above and persons sixty five (65) years of age or older, who are domiciled in Tennessee, may enroll in courses for credit without

payment of tuition charges, maintenance fees, student activity fees or registration fees. However, such students must pay a per hour service fee, and all laboratory fees must be paid in full.

EXPENSES, FINANCIAL AID, AND ADMISSIONS



GENERAL FEES INFORMATION—1979-80

All fees listed on this sheet are quoted on a semester basis. These fees for 1979-80 supersede all previous publications of fees for 1979-80. FEES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Application Fee—An application fee of $5 is charged for processing all applications for admission or readmission to the University, effective October 1, 1975. A money order or certified check for $5 (payable to Tennessee State University) must accompany the application.

CAMPUS UNDERGRADUATE STUDENTS PER SEMESTER

	TENNESSEE STUDENTS			OUT-OF-STATE STUDENTS		
	Watson (M) Boyd (M) Eppse (M) Wilson (W)	Hale (W)	Hankal (W)	Watson (M) Boyd (M) Eppse (M) Wilson (W)	Hale (W)	Hankal (W)
Maintenance Fees	$ 216	$ 216	$ 216	$ 216	$ 216	$ 216
Tuition	N/A	N/A	N/A	501	501	501
Debt Service Fee	35	35	35	35	35	35
*Student Government Fee	1	1	1	1	1	1
Room	346	371	318	346	371	318
Board	340	340	340	340	340	340
	$ 938	$ 963	$ 910	$1,439	$1,464	$1,411

SPECIAL NOTICE: Centrex Telephone Service charges are included in the room rate schedule above.

Room deposit fee is $40.00.

OFF-CAMPUS STUDENTS

	TENNESSEE STUDENTS		OUT-OF-STATE STUDENTS	
	Undergraduate	Graduate**	Undergraduate	Graduate**
Maintenance Fee	$216	$237	$216	$237
Tuition	N/A	N/A	501	501
Debt Service Fee	35	35	35	35
*Student Government Fee	1	1	1	1
	$252	$273	$753	$774

PART-TIME

	TENNESSEE STUDENTS		OUT-OF-STATE STUDENTS	
	Undergraduate 1-11 hrs.	Graduate 1-11 hrs.	Undergraduate 1-11 hrs.	Graduate 1-11 hrs.
Maintenance Fee	$20 per hr.	$23 per hr.	$20 per hr.	$23 per hr.
Tuition	N/A	N/A	42 per hr.	42 per hr.
Debt Service Fee	3 per hr.	3 per hr.	3 per hr.	3 per hr.
*Student Government Fee	1	1	1	1

SPECIAL FEES

Application Fee (including readmission	$ 5
Auto Registration (academic year)	5
(summer)	1
Auto Restricted Parking Registration (academic year)	25
(summer)	5
Bad Check Charge	5
Class Audit (per course hr.) (undergraduate	18
(graduate)	26
Conference—600 (per sem.)	25
Cooperative Education (per sem.)	15
Credit by Examination (per course)	15
Duplicate I.D. Card	10
Graduation Fee, Bachelors & Associates Arts	20
Graduation Fee, Masters, EDS	20
Graduate Oral Exam	15
Graduate Record Examination	15
Incomplete Project Writing (after 3 sem. hrs.)	15
Incomplete Thesis Writing (after 4 sem. hrs.)	25
Intern Fee (per semester)	25
Late Examination or Removal of Incomplete except Thesis	$ 0
Late Registration (per day to $10 Maximum)	5
Meal Card Replacement	15
Master's Thesis Binding	30
Music Instrument Lessons (per course)	15
Organ Lessons (per course)	30
Property Damage Fee	Actual
Tests, ACT	8
Tests, GED	10
Voice Lessons (per course)	15

*Last year the Tennessee State General Assembly authorized public colleges and universities to charge a $1 per student assessment for the benefit and support of Student Government and Student Life activities. In March of 1979 pursuant to a vote of the general student body. Tennessee State University authorized the implementation of this assessment. Your current fees include this $1 charge.

**Room and board charges for graduate students who wish to live on campus are the same as undergraduate students.

INCIDENTAL FEE SCHEDULE

APPLICATION FEE—$5.00 Non-refundable

This a one-time fee paid by an individual who applies for admission to the University. This fee is not required of a graduate student if there already is an application for undergraduate school on record. A money order or certified check for $5.00, payable to Tennessee State University, must accompany each application.

IDENTIFICATION CARD

The University issues to each student an identification card which certifies that he/she is enrolled as a student in the University. There is no charge for the original card. A charge of ten ($10) dollars is required for its replacement. This identification card which includes the student's photograph is required for registration, all financial transactions, borrowing of library books, and other purposes.

LATE REGISTRATION—$10.00

Students who do not complete registration during the official registration period will be charged $10.00.

MOTOR VEHICLE REGISTRATION—$5.00 & $1.00 Non refundable

Any person who expects to operate and park an automobile on campus

must register the automobile with the Security Office and pay for an official permit. The fee of $5.00 for academic year; and a fee of $1.00 for summer; this amount is non-refundable.

RESTRICTED PARKING REGISTRATION—$25.00 & $5.00 Non-refundable

Any person who wishes to park an automobile on a restricted parking lot may do so by purchasing a restricted parking permit from the Security Office. The fee of $25.00 for academic year, and a fee of $5.00 for summer; this amount is non-refundable.

GRADUATION FEE—$20.00

Each candidate for a degree must pay this graduation fee to cover the cost of cap and gown and other incidentals involved with graduation. This fee must be paid thirty days before graduation.

BAD CHECK FEE—$5.00 per check Non-refundable

All checks given the University are expected to clear the bank on which they are drawn. If a check is returned, all fees are assumed to be unpaid and the above service charge is assessed on each check. Check writing privileges may be revoked for any individual who has checks returned by his bank more than once.

CHANGE OF COURSE OR SECTION FEE—$5.00 per form Non-refundable

Any student who adds or drops a course or section will be charged this fee. If the change is caused by the institution, there is no charge.

THESIS FEE—$30.00 Non-refundable

Any graduate student completing a thesis is required to present a receipt from the Business Office to the Graduate Office verifying that this fee has been paid.

TRAFFIC FINES—Non-refundable

All fines imposed by the University are to be considered receivables and must be paid at the Business Office.

LIBRARY FINES—Non-refundable

All fines imposed by the University Library are considered receivable and must be paid at the Library.

AUDITING FEE—$15.00 per credit Non-refundable

Persons other than regularly enrolled student may be permitted to audit classes only with the approval of the teacher of the course. Such persons must follow the regular registration procedures and pay an amount based on the degree credit fee.

FINANCIAL AID

Tennessee State University has a broadly based financial aid program. Therefore, an applicant may apply for and receive aid from one or more programs at the same time. Since the University cannot supply funds to cover the financial needs of all its students, students are also urged to investigate and seek aid from sources outside the University. Fair and equal consideration is given all applicants without regard to race, color, sex, handicap condition, or religious beliefs in keeping with program regulations.

We use College Scholarship Service as our major clearinghouse for need determination. All students who want to be considered for aid are requested to file an Application for Financial Aid anda Financial Aid Form (FAF) each year, according to instructions given on both forms. (We also accept the Family Financial Statement of ACT.) Undergraduate students should also apply for a Basic Educational Opportunity Grant (BEOG) by checking Item 83 "yes" on the FAF form.

The Financial Aid Form and the Application for Financial Aid may be obtained at the local high school's guidance counselor's office. These forms are also available in the Financial Aid Office here at the University and can be received through the mail upon request.

All students are required to submit a processed BEOG Student Eligibility Report (SER) to the Financial Aid Office in order to receive a complete award package. Students who do not submit the completed SER will receive a partial award taking into consideration the student's expected BEOG amount.

The sources of aid are:

College Work Study Program—A part-time employment program that is a product of the Economic Opportunity Act of 1964. It is jointly funded by the Federal Government and the University.

College Work Aid Program—Provides part-time employment on campus from University funds.

Supplemental Educational Opportunity Grant—A program that provides a gift grant which is federally funded and is a product of the Higher Education Act of 1965.

National Direct Student Loan—Provides low interest loans to eligible students and is a product of the National Defense Education Act of 1958.

Basic Educational Opportunity Grant—Provides gift grants to eligible students and is federally funded.

Nursing Student Loan—Provides low interest loans to eligible nursing students and is federally funded.

Tennessee State University-Scholarship Grant—Provides gifts grants to eligible students and is institutionally funded.

Law Enforcement Education Program—Provides loans and/or grants to eligible students. Authorized under Title I, Part D, Section 406 of the Omnibus Crime and Safe Streets Act of 1968.

Academic Work Scholarship—Provides employment of an educational nature and is awarded to Tennessee high school graduates who graduated in the top quartile of their graduating class.

Guaranteed Student Loan—Enables students to borrow directly from banks, credit unions, savings and loan associations and other participating lenders who are willing to make educational loans. Further details may be obtained by making inquiry in the Financial Aid Office. Tennessee State University has been approved to participate in this program to a limited extent as a lender of last resort through the Tennessee Student Assistance Corporation. The loans of last resort are available only to students who are residents of the State of Tennessee.

Departmental and University Scholarships—Provides scholarships through the different departments of the University from business and industry. The scholarship program is administered through the scholarship committee. (See the list at the end of this section for the particular requirements for each scholarship.)

ELIGIBILITY

A student must meet program eligibility requirements, have financial need, be enrolled or accepted for enrollment. In case of the SEOG, the student must show academic and/or creative promise. The student who seeks aid, as well as all other students, is expected to estimate his expenses for the year. These expenses would include: tuition and/or fees, room and board, books and supplies, transportation, laundry and cleaning, recreation and personal expenses.

ADMISSION TO THE UNIVERSITY

Admission of Freshmen

Applicants for admission to the freshman class should submit their application material as early as possible in their senior year of high school.

Applicants should request high schools to send transcripts including all semesters of high school credits except the final semester credits as soon as grades are available. Applicants are requested to furnish supplementary records immediately following graduation from high school.

First Time Freshmen

1. All students will be required to submit an application for admission and a $5.00 nonrefundable processing fee for admission.
2. Any student desiring to be admitted without any conditions must have submitted application, an application fee, and all documents (transcripts) at least 45 days prior to the semester of intent.
3. Students under age 21 who wish to enter a degree program as beginning freshmen will be required to submit an ACT/or SAT score.
4. Students seeking admission based upon high school graduation from an approved private or public school must submit a high school transcript indicating date of graduation and completion of necessary units as stipulated by academic departments. Any student who is deficient will be required to remove the deficiencies. Letters of recommendation will not be required by the student.
5. Any student desiring admission based on the General Education Development Test must be age 18, and submit a minimum composite score of 45. A high school transcript will be requested, but is not mandatory.

Early Admission

High School Seniors may be admitted to the University for the purpose of enrolling in Freshman English, History or Mathematics. Applicants must possess a 3.00 grade point average on a 4.00 system for the high school work completed or a composite standard score of 16 on the **ACT.** The recommendation of either the principal or guidance counselor at the student's respective high school must accompany the application and high school transcript.

Three semester hours of credit will be awarded for each 45 clock hours of acceptable classroom performance by each student. Students may enroll in a maximum of six (6) credit hours at any given term.

Re-Admissions—TSU Students

Students who leave the University voluntarily and who do not enroll for courses during one or more regular semesters must contact the Office of Admissions and Records to request an update of their admissions file. Summer is considered a regular semester in determining absence from the University if the student has taken courses at another college or university. Students who return to TSU after attending other accredited colleges or universities must submit official transcripts of all course work. A written request must have been received by the Admissions and Records Office two weeks prior to the regular scheduled registration as designated in the academic calendar.

Transfer Students—In-State

All students seeking advanced standing must submit official transcripts of all college credit earned. A student will be considered a transfer

student if he has taken any college work at another institution.

To qualify for admission by transfer from a college or university in the State of Tennessee, a Tennessee resident or non-resident must meet one of the following grade point average requirements:

*Hours Attempted	*Required Grade Point Average
0-14 hours attempted	No minimum GPA
14.1-26 hours attempted	Not less than a 1.00 cumulative average
26.1-40 hours attempted	Not less than a 1.4 cumulative average
40.1-60 hours attempted	Not less than a 1.7 cumulative average
60.1-90 hours attempted	Not less than a 1.9 cumulative average
90.1-and above	Not less than a 2.0 cumulative average

Transfer Students—Out-of-State

To be considered for admission, a student transferring from an out-of-state college or university must have, as a minimum, an over-all 2.00 or "C" average.

All transfer grades will be used in computing the average required for admission.

Students transferring any credits from a junior/community college must complete 60 semester hours credit offered for the bachelor's degree at TSU.

Students whose records do not meet standards for admission required by the University will be refused admission unless, in the opinion of the Admissions and Readmissions Committee, scholastic probation is justified.

A student who has been dismissed from a college or university because of academic reasons must be eligible to re-enter that institution prior to acceptance.

Admission may be subject to the approval of the Committee on Readmissions. A student's written request for an appeal must be received by the Office of Admissions and Records at least two weeks prior to the regularly scheduled registration as designated in the academic calendar.

Credit earned by students at colleges and universities not approved by the Southern Association of Colleges and Universities must be reviewed by the academic dean for consideration. Business and technical schools are examples. Otherwise, the admissions office will assign and evaluate credit by using the TRANSFER CREDIT PRACTICES OF SELECTED EDUCATIONAL INSTITUTIONS.

Admission with Advanced Standing from Accredited Institutions

Students who have attended other accredited colleges or universities may apply for admission to Tennessee State University with advanced standing by fulfilling the following requirements:

1. File an official transcript of records from all high schools, colleges or universities previously attended, whether or not the applicant wishes to receive credit for such work.
2. Present a letter of honorable exit from the last institution attended.

Credits earned by students who are Tennessee residents attending public colleges and universities in Tennessee will be accepted toward a degree programs on the same basis as work taken on the campus of Tennessee State University. All other students seeking advanced standing will be admitted to Tennessee State University provided they meet the minimum requirement of a 2.00 Grade Point Average.

Admission with Advanced Standing from Non-Accredited Institutions

Students who desire to enter Tennessee State University from non-accredited colleges may register under the following stipulations:

1. Present an official transcript showing a grade point average of 2.00.
2. Credit for work done prior to entering Tennessee State University will be granted as:
   a. Full credit if work at Tennessee State University during the first semester as a full-time student is 3.00 or above.
   b. Three-fourths credit if work at Tennessee State University is below 3.00 but not less than 2.50.
   c. Half credit if work at Tennessee State University is below 2.50 but not less than 2.00
   d. No credit if work at Tennessee State University is below 2.00

Since the Fall of 1974 Tennessee State University has been operating under the semester system. All transfer credits from institutions not on the semester system will be converted to semester credits. Cumulative averages are computed on the basis of A equals 4 quality points for each credit hour.

The fees charged per semester hour will be the same as other undergraduate courses.

PROGRAMS WITH SPECIAL ADMISSION REQUIREMENTS

Some instructional programs at the University are subject to special admission requirements which are in addition to the general admission requirements. Students wishing to enter one of these programs of study should check the appropriate school and/or department section of the catalogue. The present programs of this type are shown below:

Nursing Education
Dental Hygiene
Health Care Administration and Planning
Business Administration
Engineering
Teacher Education

CROSS-TOWN ENROLLMENT IN THE AIR FORCE RESERVE OFFICERS TRAINING CORPS

Educational institutions within Nashville and the surrounding area having a Cross-town Agreement with Tennessee State University may allow their students to enroll in the university's AFROTC Program. These students are eligible to receive all benefits, privileges, and scholarships as fully enrolled TSU students. At present, Vanderbilt University, Middle Tennessee State University, Fisk University, David Lipscomb College, Trevecca Nazarene College, and Aquinas Junior College have such agreements with the university.

Correspondence

Correspondence credit will be accepted only if earned at public institutions of higher education in the State of Tennessee.

Special Student

A student may be admitted as a Special Student who is age 18 or over who desires to take a limited number of undergraduate courses and who does not plan to work toward a degree subject to the following provisions:

1. A special student desiring a course must have completed prerequisite courses, if any.
2. A student who has been dismissed from a college or university because of academic reasons may not apply for admission as a special student until two semesters have elapsed. Students may request committee action; otherwise, the student will be eligible for probationary status, if and only if, he would be allowed to re-enter the institution from which he was suspended.
3. To subsequently enroll as a degree-seeking student, a Special Student must meet admission requirements for transfer students and must satisfy the requirements of the degree program. A student may not count toward the requirements for a bachelor's degree more than 60 semester hours earned while as a Special Student, prior to enrollment as a degree seeking student.
4. A student who wishes to enroll in a certificate program only, which requires less than 60 semester hours, should register as a Special Student.

Transient students are students who are either currently enrolled at another school or who have dropped out of school for one semester. In either case, these students must submit a letter of good standing from their current school or previous school. This letter should be issued after the last period of attendance.

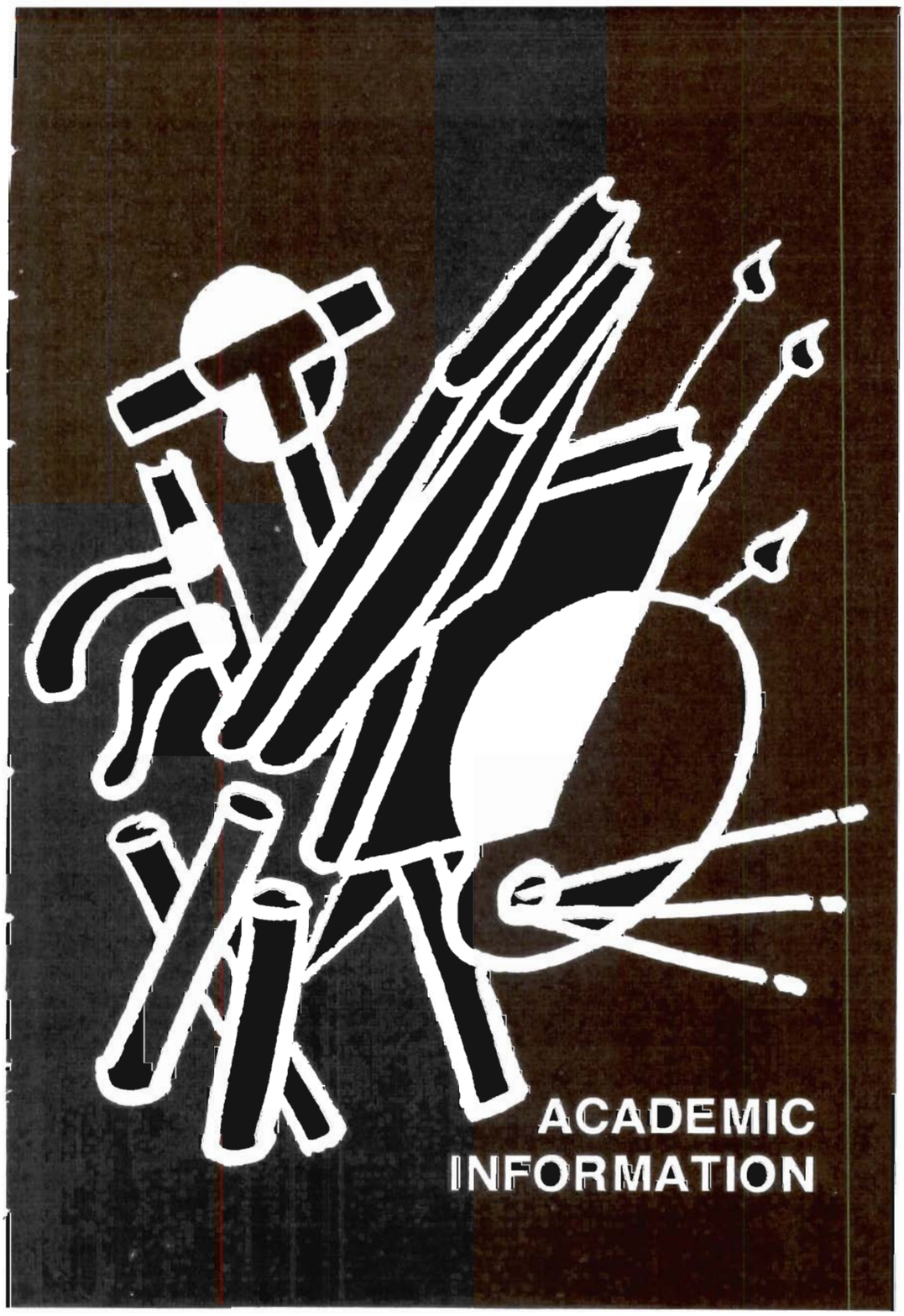
Letters of good standing should be on file by the end of the third week of class during the semester in which the student enrolls and/or no later than mid-term.

International Students

International students with superior scholastic records are considered for admission as freshmen and as transfer students. An applicant whose native language is not English is required to submit a test score of 500, as the minimum acceptance level of performance on the Test of English as a Foreign Language.

Students who wish to take the test should write directly to TOEFL, Educational Testing Service, Princeton, New Jersey 08540. The application, complete official scholastic records, and TOEFL score must be in the Office of Admissions at least 60 days before the beginning of the semester in which admission is desired. If complete documents are not on file by this deadline, the application will be considered for the next scheduled registration period. The application must be accompanied by a nonrefundable fee of $5.00

International applicants must indicate the avaliability of sufficient funds to meet all costs while studying at the University.



ACADEMIC INFORMATION

ACADEMIC INFORMATION

REGISTRATION

Any person who anticipates registering as a Tennessee State University student should be sure that he has met the University requirements for admission. Official enrollment is achieved by properly registering in each course, having photograph made for identification card, and payment of all fees.

Normally, all students register for courses during the days on which registration is scheduled. Detailed instructions are made available by the Director of Admissions and Records as to time, places, and procedure for registration.

A late registration period is provided for those who are unable to register during the regular registration days. However, students who register late are required to pay a late registration fee, and often find it difficult to secure a satisfactory schedule of classes. The late registration fee is assessed at the rate of $5.00 per day, beginning the first day after the close of regular registration.

CLASS LOADS

The normal class load for a full time undergraduate student is 15 to 18 credit hours per semester, and the minimum class load is 12.0 credit hours per semester. One semester hour credit of required physical education (P.E. 11-94 series) or one semester hour credit of aerospace studies at the 100 or 200 level may be added to the normal load.

A regular student is expected to carry the full curricular load officially designated for the given semester of his classification. However, the class load may be reduced because of poor scholarship, because the student must work or upon the advice of the Dean of the School in which the student is registered.

Freshmen who score less than 15 on ACT and have a high school GPA of less than 2.00 are encouraged to enroll in no more than 15 credit hours for the first semester of enrollment.

PROBATIONARY STUDENT CLASS LOADS

A student who incurs scholastic probation in any semester (see scholarship standards) will be allowed to carry a maximum of 15 semester hours.

MAXIMUM CLASS LOADS

Freshmen may not elect hours in excess of their full curricular load. Sophomores, juniors, and seniors whose cumulative grade-point averages are 3.00 or above may register for as many as three credit hours in excess of the normal curricular load—up to a total of 21 credit hours.

Seniors whose grade-point averages are less than 3.00 and more than 2.00 may register for as many as three credit hours in excess of their full curricular load, but not in excess of 21 credit hours.

In all cases, the student must apply to his School Dean who may approve requests for such increases in class loads. The School Dean must notify the Admissions Office in writing of each case which he approves.

ADJUSTING CLASS LOADS

At the end of the regular registration period, the student may make adjustments in his/her schedule through the process of adding and/or dropping courses with the major advisor's approval within the allowed maximum and minimum hours (see Class Loads). The last day for dropping and/or adding classes will correspond to the final day of late registration.

The proper forms for dropping, adding, and/or changing sections will be provided by the Office of Admissions and Records. Either section becomes official when the form is properly completed with the necessary information plus the major advisor's signature, and is submitted to the Office of Admissions and Records.

A student may drop a class or withdraw from the University without penalty and receive a grade of "W" for each course in which he/she is enrolled according to the following schedule:

Regular Term . . .End of 9th Week
Summer Term . . .End of 3rd Week
Week of Summer I
or Summer II

A student may officially withdraw from the University at any time during a semester. However, after the end of the ninth week of a semester (3rd week in Summer I or II), mandatory grades of "F" will be given unless the Office of Student Affairs submits written certification that an unavoidable circumstance exists. For example, further attendance in class will be detrimental to the student's health or attendance has been made impossible by circumstances beyond the student's control. In the event of such certification the faculty member will award the grade of "W" for the student in each course which the student is enrolled.

POLICY ON DROPPING THE STUDENT FROM CLASS

Instructors are expected to keep an accurate record of class attendance and be able to report, on official request, the number of absences of any student in their classes. Any time from the beginning of the class until the mandatory date for a grade of F, students may be dropped from class by the instructor when absences become excessive. Dropping a student from class is the discretion of the individual instructor, with the understanding that the minimum norm for defining excessive absence is a total of one absence in excess of the number of scheduled times the class meets during the week, exclusive of administratively approved

absences. (At the discretion of the instructor this definition may be liberalized on the basis of additional absences caused by circumstances acceptable to the instructor.)

At the time the instructor reports that the student has been dropped from class because of excessive absences, the instructor will assign a "W" or a grade of "F". The student will be excluded from further attendance in that class until readmitted by formal permission of the instructor.

REPORTING DROPPING THE STUDENT

a. Written reports are to be made by the instructor to the Dean of Admissions and Records not later than one day after the student has been dropped.
b. The Dean of Admissions and Records will place a notice of this action in the student's mail box on campus or mail it to the permanent address of those who do not have campus mail boxes, not later than one day after the report is received.
c. The student **must** officially drop the class in the Office of Admissions and Records. **Failure of the student to officially drop the course through the Office of Admissions and Records will result in a grade of "F".**

SUBSTITUTION OF COURSES

Requests to substitute courses required in the curriculum are presented to the Head of the Department in which the student is registered. If the Department Head approved the request, he forwards it to the Dean of the School for approval. Requests for a substitution must be made no later than the semester preceding the one in which the students expects to graduate. Substitutions must not violate the minimum University requirements for a Bachelor's Degree.

CLASS ATTENDANCE

Students are expected to attend regularly all courses in which they are enrolled for credit and to complete all required work in such courses. Irregular attendance or any substantial number of unexcused absences may weigh adversely in the consideration of grades or any petition for a special academic privilege such as make-up examination.

Freshmen are permitted no more unexcused absences from a course than the number of credit hours assigned to that course. (Thus, in a three-credit hour course, three unexcused absences are permitted.) Freshmen who violate this regulation may be dismissed from Tennessee State University.

All excuses for absences must be secured through the Office of the Vice President for Student Affairs. In addition, the student should inform each of his teachers as to the cause for his absence.

Regular Monday, Wednesday, and Friday classes during the academic year begin on the hour and end 10 minutes prior to the hour. Regular

Tuesday and Thursday classes are scheduled for 75 minute periods and are separated by 10 minute intervals. Some classes meet for periods of time that vary from these patterns. These are designated in the published semester schedules. Punctuality in attending classes is expected of all students. Official registration is required before classes are attended.

CLASS AUDITORS

Regularly enrolled students may enter classes as auditors with the approval of the major adviser and the teacher of the course. The regular registration procedure is followed in registering for a class to be audited.

Persons other than regularly enrolled students may be permitted to audit class only with the approval of the teacher of the course. Such persons shall follow the regular registration procedure and pay $15.00 per credit hour for each course to be audited.

Auditors are not under obligations of regular attendance, class preparation, recitation, or examination; nor do they receive credit. At the end of the semester the "audit" course card will be marked "No Credit Audit" by the teacher and returned to the Office of Admissions and Records.

GRADING SYSTEM

Course grades for undergraduate students are awarded as follows:

Grades	Quality Points Per Semester Hour	Description
"A or "H"*	4.0	Excellent, work of exceptional quality which indicates the highest level of attainment in a course.
"B" or "P"*	3.0	Good, work above average which indicates a high level of achievement.
"C"	2.0	Work of Average quality representing substantial fulfillment of the minimum essentials of a course.

*"H" and "P" are used only in Colloquia courses in the Honor's Program

"D"		1.0	Poor, representing passing work but below the standards of graduation quality.
"EP"		0.0	Represents the successful completion of examination for credit with an equivalent grade of "C" or better.
"EF"		0.0	Represents the failure to produce work of at least "C" quality of an examination of credit.
"F"		0.0	Failure, representing unacceptable performance in a credit course.
"I"	0.0		Represents incomplete work of passing quality and is given when the student has missed an examination or some small part of the required course work.
"NC"		0.0	Recorded by the Office of Admissions and Records when the "I" grade is not removed within one (1) calendar year.
"NG"		0.0	Given only to Special Services students for unsatisfactory performance in a credit course.
"S"		0.0	Represents satisfactory performance in a non-credit course.

"U"	0.0	Given for unsatisfactory performance in a non-credit course
"W"	0.0	Represents official withdrawal from a course or the University.
"X" (Audit)	0.0	Given by a faculty member only in instances when the student has registered and attended a course for audit rather than for credit.

For each course in which a student is enrolled, a specific letter grade must be awarded.

REGULATIONS REGARDING GRADES OF "I", "D", AND "F"

Removal of "I" Grades: "Incomplete" is a temporary grade which must be removed from the undergraduate student's permanent record within one calendar year from the end of the term in which the "I" grade was awarded. If all requirements of a course in which the "I" was awarded are not met within two consecutive terms, the grade of "I" will be changed to "NC" (no credit) by the Office of Admissions and Records.

No student will be allowed to accumulate more than 15 credit hours with the grade of "NC." For all succeeding courses for which the grade of "I" is awarded and not removed, the grade will be converted to "F" by the Office of Admissions and Records. The student is responsible for initiating all necessary steps to remove the deficiency grade:

1. Inquire in the Office of Admissions and Records regarding the course in which the grade of "I" has been awarded.
2. Pay to the Business Manager's office the fee of $5.00 (applicable only to undergraduate courses).
3. Secure from the Office of Admissions and Records the replacement grade card.
4. Take the replacement grade card to the teacher of the course in which the "I" was earned.
5. The replacement grade must be filed in the Office of Admissions and Records in person by the teacher of the course after it has been properly filled in (name of student, grade awarded, credit hours which

the course carries, title of the course, major advisor's signature, and the instructor's signature).

6. The "I" removal card must be in the Office of Admissions and Records no later than the last day of the semester in which the "I" grade expires (a 12 month period).

REPEAT GRADES

Repeating of Courses: After consultation with the Major advisor, the student may repeat courses regardless of prior grades awarded. The last grade awarded in the courses repeated supersedes all grades and will be counted in the semester in which the course is repeated.

The student must file the repeat form in the Office of Admissions and Records. It is the responsibility of the student to execute the proper forms for official notification of the repeating of any course. Without this notification the student will not gain the benefit of having hours attempted counted only once toward the Grade Point Average.

To receive educational assistance benefits, a veteran may not repeat courses unless as specified in the Veterans Administration regulations.

EXAMINATIONS

Late Final Examinations: Students are expected to take all examinations according to the schedule except in very unusual circumstances, such as incapacitating ill health. If a student does absent himself from final examinations without having first secured the written permission of his School Dean, he must confer as soon thereafter as possible with his School Dean concerning the reasons for having missed the examination(s). If after conferring with the teacher of the course, the Dean is satisfied that unusual, justifying circumstances obtained, he gives the student permission to take a late examination.

EXAMINATION FOR CREDIT

Ordinarily, credit may not be obtained except by pursing a course in the regular manner. Examinations for course credit are permitted only in cases where there is substantial evidence that the student has already covered the content of the course. The competencies, skills and/or information may have been acquired, for example, through a similar course taken at another school for which credit has not been accepted by Tennessee State University, through job experiences, or other activities. The examination must be of comparable difficulty and scope to the regular examination for the course. Such an examination can only be taken once for each course.

Credit for examination may be attained for:

a. research or independent study courses.
b. any course work from which the student has been exempted by placement examination or which was accepted for admission purposes.

Special forms for such examinations may be secured from the Office of Admissions and Records. If the request is denied by the Department Head and/or Departmental Review Committee in whose area the course is

offered, the Department Head retains the form and forwards copies to the student's major advisor and Department Head. If the request is approved, the Department Head signs the form which the student then presents to the Business Office with a payment of $15.00, the required fee for each such examination. The student submits the form and receipt to the teacher designated to administer the examination.

The teacher who gives the examination submits a copy of the examination and the form with the results recorded on it to the Department Head. The remaining copies of the form are distributed by the teacher as follows: one to the Office of Admissions and Records; one to the student's major advisor; and one to the student's Department Head.

Upon successfully completing the examination with an equivalent grade of "C" or better, "EP" will be recorded on the student's transcript. Otherwise "EF" will be reported and recorded. Neither "EP" nor "EF" will be used in computing the grade point average.

A maximum of forty-four semester hours may be earned through credit by examination.

Credit By Examination: A student may earn semester hours of credit in certain introductory departmental coures, through tests offered in the College-Level Examination Program (CLEP). Information about the tests and permission to take them can be obtained from the University Testing Center.

SCHOLARSHIP STANDARDS AND PROBATION

Retention Standards and Academic Probation

The minimum grade point average required by the University for awarding the baccalaureate or associate degree is 2.00 for all credit work taken by the student as part of an approved program of study. The GPA is computed by dividing the total number of hours attempted into the total number of quality points earned (See Grading System) except for credit hours in courses for which the student received a "W" (See Adjusting Class Loads). Also, a repeated course is counted as attempted one time only. Any enrolled student who meets the minimum academic requirements is in good standing at the University.

Probationary status will be incurred by a student who in any term fails to meet the standards listed below:

0-14 hours attempted—No minimum GPA
14.1-26 hours attempted—Not less than a 1.0 cumulative average
26.1-40 hours attempted—Not less than a 1.4 cumulative average
40.1-60 hours attempted—Not less than a 1.7 cumulative average
60.1-90 hours attempted—Not less than a 1.9 cumulative average
90.1 and above—Not less than a 2.0 cumulative average.

At the end of the next term of enrollment, a student on academic probation who has failed to attain either the above cumulative standard or a 2.0 GPA for that term will be suspended for a minimum of one term. A

suspended student may apply for readmission. If readmitted, the student enters the University with probationary status. Another suspension at the end of the term of readmission may be avoided by achieving the minimum cumulative average according to the above standards. Moreover, a student on academic probation will not be suspended at the end of any term during which a term average of 2.00 has been earned.

A student who believes that extenuating circumstances contributed to his/her suspension may appeal the case to the University's Review Committee on Suspension and Readmission. To appeal, the student must explain those circumstances in a letter submitted to the Office of Admissions and Records immediately after receiving notification of suspension.

*Note: A term is defined as one semester or one summer (I and II).

REGISTRATION PROCEDURES

Detailed procedures for registration are given each semester as a part of the schedule of classes.

The following must be observed prior to registration to avoid delay:

1. Freshmen and transfers must be accepted for admission prior to registration
2. All students are expected to register at their scheduled time for registration. No one will be allowed to register earlier than his scheduled time. Each student must observe registration procedures as specified at that time. A student is not officially enrolled until he has completed all of the requirements of registration including the payment of fees. Registration after the regular registration dates may be completed by presenting an acceptable reason for the delay and by the payment of a late registration fee.
3. Former students must settle all prior accounts in the Business Office before re-enrolling.

The following must be observed during the registration period:

1. All freshmen must complete the testing program.
2. All students must have a conference with faculty advisor to arrange an approved schedule of classes.
3. All students must secure admission to the classes desired.
4. All students must pay fees in full on the day they register. Students who have not paid their appropriate fees on the day they register may, at the discretion of the University, be automatically withdrawn from the University. Students will not be enrolled officially until their fees are paid.
5. Upon completion of payment of all fees, freshmen and transfer students must have I.D. picture made and validated, and register automobile. All others must have their I.D. validated and register automobile.

SECOND BACHELOR'S DEGREE

A student who holds a bachelor's degree may receive a second bachelor's degree from The University by satisfying the following requirements.

1. Meet all requirements for both degrees, as specified above.
2. Complete at least thirty semester hours beyond the first bachelor's degree.
3. Attend the University for at least two semesters beyond the minimum time required for the first bachelor's degree.

GRADUATE CREDIT

Students who are classified as seniors and enrolled in the last semester of the senior year may be allowed to take a maximum of six graduate semester hours upon aproval by the Dean of the Graduate School.

ENGLISH PROFICIENCY EXAMINATION: During the second semester of the freshman year, all students must take an examination to determine their proficiency in English.

Those students who do not demonstrate satisfactory performance on the test will be required to enroll in English 201, Advanced Composition, and to earn a minimum grade of "C" in this course.

CLASSIFICATION OF STUDENTS

All students of the University must be classified in one of the following categories:

Freshmen: Those who have completed less than 30 semester hours,

Sophomores: Those who have completed 30 or more semester hours but less than 60 semester hours,

Juniors: Those who have completed 60 or more semester hours but less than 90 semester hours and have earned an average of "C" (2.00) in all work taken.

Seniors: Those who have completed 90 semester hours or more and have earned an average of "C" in all work taken.

Specials: (a) Those who meet entrance requirements and who wish to pursue particular studies but not to qualify for a bachelor's degree. Such students may be admitted with the permission of the Dean of Admissions and Records. (b) Those who are twenty-one years of age and who have not completed four years of high school work may enroll in such courses as they are prepared to take.

POLICY CONCERNING STUDENT ACCESS TO EDUCATION RECORDS

Definitions

Education Records. EDUCATION RECORDS is defined as those records, files, documents, and other materials which (1) contain information directly related to a student; and (2) are maintained by Tennessee State University or by a person acting for the University. "Records" means information recorded in any medium, including, but not limited to

the following: handwriting, print, tapes, film, microfilm, and microfiche. EDUCATION RECORDS do not include (1) personal notes, (2) records available only to law enforcement personnel, (3) employment records, (4) medical and psychiatric records (these are accessible by the student's physician).

Student. A student is any person who is or has been enrolled at Tennessee State University. An applicant who does not enroll or who is declared ineligible has no inherent right to inspect his file. Wherever "student" is used in reference to personal rights, an eligible parent of a dependent student has similar rights. This "eligible" parent is one who has satisfied Section 152 of the Internal Revenue Code of 1954, and who presents such proof to the custodian of the EDUCATION RECORDS. Normally this proof will be a written affirmation by the student and the parent declaring that the student is a dependent for Federal Income Tax purposes.

Directory Information. Directory Information is defined as: "the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student." At the time a student registers for courses, the student may notify the Office of Admissions and Records (this must be done in writing) that directory information for that student may not be released. This notification is effective only for the one semester for which the student is then registering.

Access. To have access to an EDUCATION RECORD is to be allowed to see the original record. This implies the right to obtain copies of that record.

Release of Personally Identifiable Student EDUCATION RECORDS. Tennessee State University shall not permit access to, or the release of, any information in the EDUCATION RECORDS of any student that is personally identifiable, other than Directory Information, without the written consent of the student, to any other than the following:

1. TSU officials and staff who have legitimate educational interests;
2. Officials of other schools in which the student seeks admission;
3. Appropriate persons in connection with a student's application for, or receipt of, financial aid;
4. Federal or State officials as defined in paragraph 99.37 of the regulations concerning this law;
5. State and local officials authorized by State statute;
6. Organizations conducting studies for, or on the behalf of, TSU for the purpose of assisting in accomplishing the University's stated goals, when such information will be used only by such organizations and subsequently destroyed when no longer needed for the intended purpose;
7. Accrediting organization, to carry out their functions;
8. Parents of a dependent student as defined in section 152 of the Internal Revenue Code of 1954 (Written consent may be allowed

from either of these separated or divorced parents subject to any agreement between the parents or court order. In the case of a student whose legal guardian is an institution, a party independent of the institution, appointed under State and local law to give parental consent, may be allowed to do so.);

9. In compliance with judicial order or subpoena, provided that the student is notified in advance of the compliance; or
10. Appropriate persons in connection with an emergency if such knowledge is necessary to protect the health or safety of a student or other persons.

Note: With the exception of TSU officials and staff, who have been determined by the University to have legitimate educational interest, all individuals and agencies who have requested or obtained access to a student's record will be noted in a record which is kept with each student's EDUCATION RECORD. A request must be in writing stating the purpose of the request. This record will also indicate specifically the legitimate interest that the persons or agency had in obtaining the information.

PROCEDURES FOR ACCESSING EDUCATION RECORDS

The student requests the custodian to allow him to inspect the EDUCATION RECORD. The student may ask for an explanation and/or a copy of the EDUCATION RECORD. (The price of copies shall not exceed the cost of duplicating the record.) After consultation with the custodian, errors may be corrected at that time by the custodian. If there is a disagreement between the student and the custodian as to the correctness of the data contained in the record, the student, after exhausting reasonable means of reconciliation with the custodian, may submit a request for a formal hearing. The request, and the formal challenge to the content of the records, must be presented in writing to the chairman of the University Appeals Committee. The chairman shall call a meeting of the committee or place this matter on the agenda for a scheduled meeting, no later than forty-five days after receipt of the written appeal and challenge. The committee will allow the student to present evidence to substantiate his appeal and shall render a written decision to the student within forty-five days after the meeting. Note: This procedure does not provide for a hearing to contest an academic grade.

RIGHT OF ACCESS DOES NOT INCLUDE

1. Financial records of parents or any information therein;
2. Confidential letters and statements of recommendation which were placed in the EDUCATION RECORDS of a student prior to January 1, 1975;
3. Records to which access has been waived by a student. (This applies only if a student, upon request, is notified of the names of all persons making confidential recommendations and if such recommendations are used solely for the purpose they were intended.)

DESTRUCTION OF EDUCATION RECORDS

Education records may be destroyed except that a student shall be granted access prior to the destruction if such is requested.

INFORMING STUDENTS

TSU shall inform its students of its policy governing "Privacy Rights of Students' Education Records" by publishing the policy in the University Bulletins annually.

HONORS

Dean's List

To be eligible for the Dean's List a student must have (1) a minimum cumulative grade-point average of 2.00 (C); (2) must have achieved a grade-point average of not less than 3.00 (B)for a given semester; and (3) he must have carried not less than 12 semester hours of work during the semester.

The Dean's List will be published following the close of the semester.

DEGREES WITH HONORS

The degree of Bachelor of Science or Bachelor of Arts with honors is awarded with distinction or with high distinction. To be graduated with distinction, the student must earn an average of at least 3.25. To be graduated with high distinction, the student's average must be not less than 3.50.

Students who have participated in the Honors Program will, upon achieving an average of at least 3.25 and meeting other requirements of the Program, be graduated with UNIVERSITY HONORS.

To be eligible for honors, a student must have been in residence for not less than four semesters, and he must qualify as a suitable representative of Tennessee State University.

Candidates for honors must qualify one semester prior to graduation.

UNIVERSITY REQUIREMENTS FOR A BACHELOR'S DEGREE

A bachelor's degree is conferred on a student who satisfactorily completes a curriculum in one of the departments. The candidate for a bachelor's degree must satisfactorily complete each of the general requirements of the University as listed below.

1. The minimum University requirement for a bachelor's degree is 132 semester hours with a minimum cumulative average of "C" (2.00).
2. A minimum of 60 semester hours must be completed in the 300 and 400 level courses.
3. A minimum of 24 semester hours must be offered for a major with a minimum of 10 hours on the 300 and 400 level.
4. A minimum of 18 semester hours is required for a minor.
5. Four semesters of required activity courses in Physical Education (P.E. 11-23, or P.E. 91-94, or AFROTC 100-200 level) or marching band.

NOTE:These courses must be completed satisfactorily during freshman and sophomore years. For students below age 25 at the time of initial enrollment, completion of four credits in health or related areas may be established as an alternate means of fulfilling the TSU requirement of four credits in physical education. For students age 25 or older at the time of initial enrollment, the four credits in physical education will be removed from the list of degree requirements. Thus, the minimum credits required for a baccalaureate degree for this latter group of students are 128 semester hours.*

Veterans may elect to obtain credit for the physical education activity courses on the basis of their military training. Two semester hours may be credited as "Individually Adapted Physical Education" for each of the first two years of military service. To obtain this credit the veteran must apply in the Office of Admissions and Records.

6. Twelve semester hours in English (must include Eng. 101-102).
7. Four semester hours in Mathematics.
8. Nine semester hours of social science, including six semester hours of American History. Students who do not present a year of American History on their high school transcripts are required by Tennessee Law to meet this requirement during the freshman year.
9. Four semester hours in humanities (Art, Drama, Speech, Music, Philosophy)—courses from two fields.
10. Six semester hours in natural sciences (biological sciences or physical sciences).
11. English Proficiency demonstrated by test score or performance in English 201 (Problems in Composition). The English Proficiency Examination is administered to all freshmen at the end of the second semester. The proficiency requirement should be met by the end of the sophomore year. Juniors and seniors (except transfer students) who have not met the requirement must do so by enrolling in and successfully passing English 201. Transfer students who have not met a comparable proficiency requirement elsewhere must take the proficiency during the first semester of residence at this institution.
12. A Senior Project.
13. Candidates for the bachelor's degree must earn in residence a minimum of 24 of the last 30 semester hours offered for the degree.

*A transfer student must spend at least one academic year in residence at the University and earn while in residence not less than 30 semester hours of credit with a minimum average of "C" (2.00).

GENERAL EDUCATION CORE FOR THE BACHELOR OF ARTS DEGREE

English 101, 102	6 semester hours
Literature (See departmental listing)	6 semester hours
Foreign Language (1-6 semesters)	8-20 semester hours
Social Sciences (must include 6 sem. hrs. of American Hist.)	9 semester hours

Natural Science	6 semester hours
Mathematics	4 semester hours
Philosophy, Music, Art, Drama (combination of any two fields)	4 semester hours
Physical Education Activity courses*	4 semester hours

*For students below age 25 at the time of initial enrollment, completion of four credits in health or related areas may be established as an alternate means of fulfilling the TSU requirement of four credits in physical education. For students age 25 or older at the time of initial enrollment, the four credits in physical education should be removed from the list of degree requirements. Thus, the minimum credits required for a baccalaureate degree for this latter group of students would be 128 semester hours.

MODERN FOREIGN LANGUAGE REQUIREMENT FOR THE BACHELOR OF ARTS DEGREE

The foreign language (French, German, or Spanish) requirement may be satisfied as follows:

a. Students who represent no (0) units of a foreign language in high school when they enter the University are to take four (4) semesters of work in one foreign language, beginning with the freshman course in that language.

b. Students who present two (2) units of a foreign language in high school and who desire to continue to work in the same language may satisfy the language requirement by pursuing two (2) semesters in that language, beginning with the sophomore course of that language.

Proficiency Test in French, German, Spanish

Students who enter the University for the first time and who present two or more high school units in a foreign language may take a proficiency test in that language. A student's proficiency in a given language may alter the number of semester hours required to satisfy the language requirements.

GENERAL EDUCATION CORE FOR THE BACHELOR OF SCIENCE DEGREE

English 101, 102	6 semester hours
Literature (see departmental listing)	6 semester hours
Social Sciences (must include 6 sem. hrs. of American History)	9 semester hours
Natural Sciences	8 semester hours
Mathematics	4 semester hours
Philosophy, Music, Art, Drama or speech (combination of any two fields)	4 semester hours
Physical Education Activity Courses*	4 semester hours

*Subject to approved exceptions and exemptions.

GENERAL INFORMATION ON THE TEACHER EDUCATION PROGRAM

An organizational unit with the title, Council on Teacher Education, is the coordinating body for the teacher education program. Its principal objectives are:

1. To help provide and perpetuate an institutional climate favorable to healthy growth of a teacher education program.
2. To develop and administer teacher education policies which will offer reasonable assurance that only persons of professional promise are prepared and recommended for entry into the teaching profession.

The Council develops policies and ways for implementing them relating to admission, retention, counseling, records, curricula, and standards for completion of the program in teacher education, and recommends the policies and ways for implementing them to the Vice President for Academic Affairs and the President of the University.

The Council is composed of the following members:

1. Dean of the School of Education, Chairperson
2. Dean of the Graduate School (Ex-Officio)
3. One member elected by the School of Agriculture and Home Economics (two years; may be re-elected)
4. One member elected by the School of Engineering and Technology (two years; may be re-elected)
5. Three members elected by the School of Arts and Sciences (two years; may be re-elected)
6. Three members elected by the School of Education (two years; may be re-elected; two undergraduae faculty members, one graduate faculty member)
7. One member elected by the School of Business (two years; may be re-elected)
8. Director of Pre-Service Field Experiences (Ex-Officio)
9. Two practitioners (principal and teacher two years)
10. Two students (one each graduate and undergraduate, one year).

The office of the Director of Teacher Education approves all students who apply for candidacy to the teacher education program and secures a record of each applicant showing that the applicant has met standards for candidacy to teacher education as required by the policies of the Council. The Director of Teacher Education informs the departmental representative for each teacher education curriculum concerning the students approved for the teacher education program.

The departmental teacher education representatives inform the Director of Teacher Education through their respective Deans of any students in their departments who are not maintaining the teacher aducation program's retention standards. He will notify the students who are not meeting the retention requirements that they have one semester in which to remove the deficiencies. Students who do not remove their deficiencies and meet the retention standards during the semester of probation are subject to be dropped from the teacher program.

TEACHER EDUCATION ADMISSION AND RETENTION REQUIREMENTS

ADMISSION

1. Each student who desires to be a candidate for admission to the Teacher Education Program will make application to the Director of Teacher Education in the second semester of the sophomore year, after he has completed 53 semester hours of course work, including the courses, Education 201—Foundations of Education, and Psychology 242—Human Growth and Learning.
2. The application should include reports showing that the student:
   (a) has made scores on the appropriate California Achievement Tests, Level 19 (Form C or D) at or above the minimum level required by the State Board of Education for admission to a Teacher Education program.

NOTE: Students who do not make satisfactory scores on the California Achievement Tests (CAT) may take the test(s) a second time, but if they fail to make satisfactory scores the second time, there is no provision for further opportunities to retake the test(s).

   (b) has made the score on the English tests at or above the minimum level required for admission to the Teacher Education program or after failing the test two (2) times has passed the designated course with a grade of B or better.
   (c) has passed departmental tests in oral and written expression.
   (d) has a 2.00 cumulative average on a 4 point scale.
   (e) has good character references.

Candidates who are approved for admission to Teacher Education and students who do not have a permanent or provisional certificate will not be permitted to enroll in the following courses without special permission from the Director of Teacher Education: Education 301, 387, 491, Psychology 312, and all methods courses.

RETENTION

To remain in the Teacher Education Program the student must:

1. Maintain the University scholarship standards.
2. Take the Teacher Education Examination during the second semester of the junior year (minimum of 85 semester hours). The student must show acceptable performance on the test before he/she is permitted to do student teaching.
3. Apply for student teaching through the teacher education curricula heads to the Director of Pre-Service Field Experiences in the first semester of the senior year (minimum of 85 semester hours). The applications should include documentation that the student has:

Met Teacher Education requirements to date.
Completed the prescribed prerequisite professional education courses and 3/4 of the prescribed courses in his/her major area of specialization with a grade of "C" or better in all methods courses. Maintained a minimum grade point average of 2.25 in the designated courses in the major area of specialization with a minimum grade of "C" in all methods courses.
Passed a physical examination showing that he is free of communicable diseases.

4. All students are required to carry a maximum of 15 semester hours, six (6) in method courses, and nine (9) in student teaching during the semester in which they do student teaching. The student must earn a grade point average of 2.00 or better.

NOTE: A student who fails the examination may take it again.
A student who has a cumulative average of 3.00 or better in the second semester of his/her sophomore year, and the first semester of his/her junior year, will be exempted from taking the Teacher Education Examination.

Students who are awarded a grade of D in student teaching may graduate from the University but will not be recommended for certification.

Students must pass the Teacher Education Examination before they apply for student teaching.

ALTERNATIVES TO THE EXAMINATION REQUIREMENTS FOR THE TEACHER EDUCATION PROGRAM

Students who fail the English test and the Teacher Education Examination, after taking the tests (2) two times, may enroll in the following courses to meet the examination requirements for the Teacher Education Program.

English 201. **PROBLEMS IN COMMUNICATION** (3 hrs.) Together with the instructor, the student will study materials that will help him to develop mastery of the skills needed to overcome his specific problems in written expression. (For students who failed the English test)

Education 470. **EDUCATIONAL SEMINAR.** (3 hrs.) A study of the foundation and history of education, curriculum development in education, methods of teaching and present trends in education. (For student in Teacher Education who failed the Teacher education examination.)

STUDENTS MUST MAKE A PASSING GRADE OF "B" OR MORE.

REQUIREMENTS FOR THE BACHELOR OF SCIENCE DEGREE IN TEACHER EDUCATION PROGRAM Maximum Sem. Hrs.

GENERAL EDUCATION CORE 41-42

Communication .....6 semester hours
English 101-102

Humanities .....10 semester hours
Literature (6 sem. hrs.)
Art, Music (4 sem. hrs.)

Social Studies .....9 semester hours
History 201-202 (6 sem. hrs.)
Geography, economics
sociology, political science,
or anthropology (3 sem. hrs.)

Natural Sciences and Mathematics .....10 semester hours
Biological Science, Physical
Science, or a combination of
these. (6 Sem. Hrs.)
Mathematics (4 Sem. Hrs.)

Health, Physical Education, Personal
Education, and Home and Family Living .....6-7 Sem. hours
Physical education activity
courses (4 sem. hrs.)
Health, personal development or
home and family living (2-3 sem. hrs.)

PROFESSIONAL EDUCATION CORE

A. Elementary Majors		Semester Hours
EDCI 201	History and Foundations of Education	3
EDCI 301	School Organization, Management and Community Relations	3
EDCI 321	Methods and Materials in Mathematics	3
EDCI 387	Curriculum Development	3
EDSE 465	Introduction to Special Education	3
Psychology 242	Human Growth and Learning	3
" 312	Measurement, Evaluation and Guidance for Classroom Teachers	3

SEMESTER BLOCK

First Half

EDCI 322	Methods and Materials in Language Arts and Social Studies	3
EDRD 324	Teaching of Reading in the Elementary School	3

Second Half

Education 472	Directed Teaching	9
	Total	36

B. Secondary Majors		Semester Hours
Education		
EDCI 201	History and Foundations of Eduation	3
" " 301	School Organization, Management and Community Relations	3
" " 387	Curriculum Development	3
" EDSE 465	Introduction to Special Education	3
Psychology 242	Human Growth and Learning	3
" 312	Measurement, Evaluation and Guidance for Classroom Teachers	3

SEMESTER BLOCK

First Half		
Education 371	Methods and Materals in Secondary Education	3
" EDRD 491	Reading and Study in the Secondary School	3
Second Half		
EDCI 472	Directed Teaching	9
	Total	33

INFORMATION FOR VETERANS, IN SERVICE PERSONNEL, DEPENDENT CHILDREN AND WAR ORPHANS

A veteran who has served continuously on active duty for a period of at least 181 days, any part of which was after January 31, 1955 and who was discharged or released under conditions other than dishonorable, is eligible for training under the Veterans Readjustment Act of 1966. The sons and daughters of deceased veterans and the sons and daughters of living veterans who have disabilities which are considered to be total and permanent in nature are eligible for training under the War Orphans Educational Act. Applications for benefits under these Acts may be secured from the Veterans Administration Office nearest the applicant.

CLASS LOAD FOR VETERANS

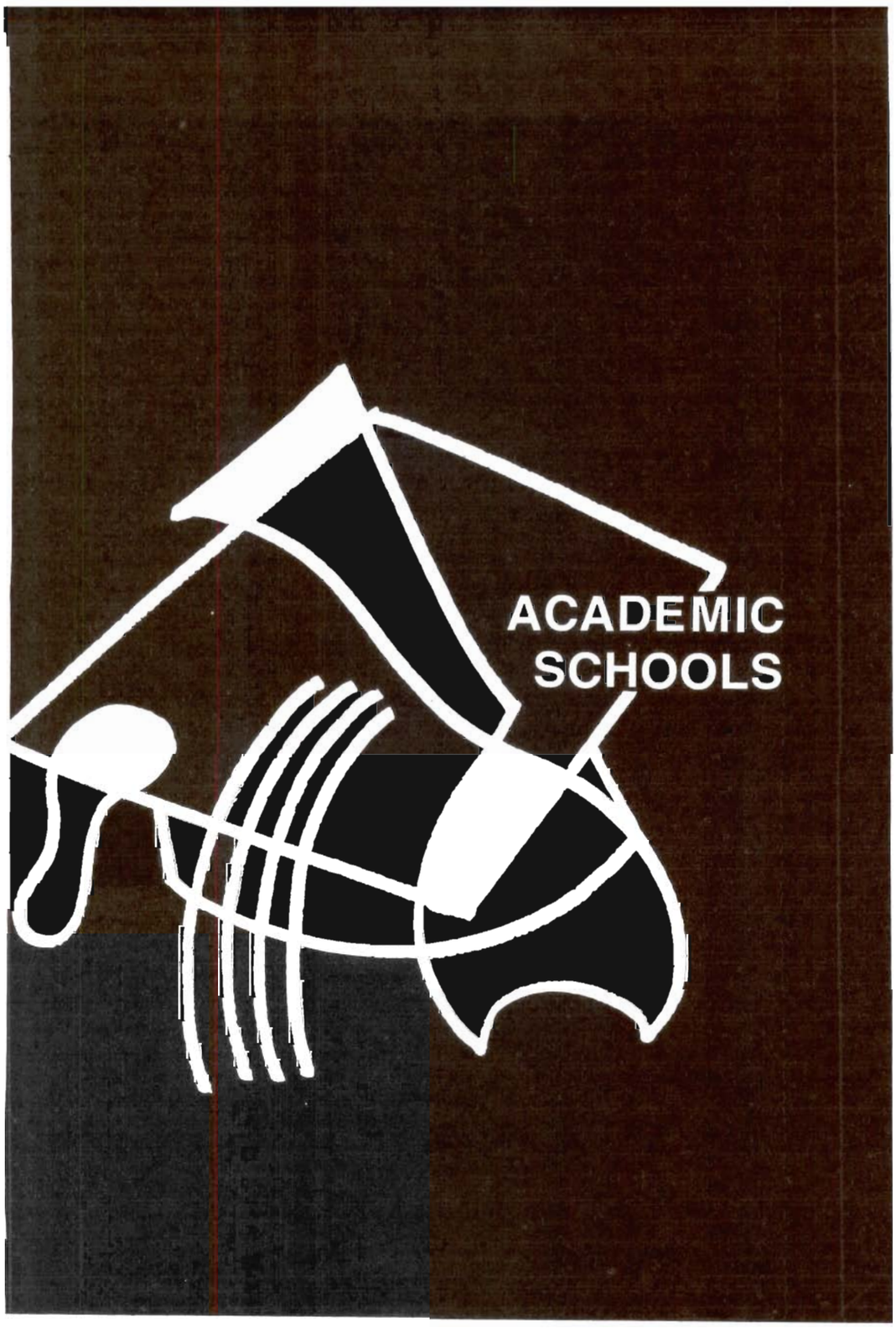
All students who expect to receive educational allowance checks must observe the following class load schedule on the undergraduate level:

Full time for 12 hours or more
3/4 time for 9-11 hours
1/2 time for 6-8 hours
None for less than ½ time (War Orphans only)

Veterans' training, conduct and progress must at all times, both on and off the campus, be maintained in a satisfactory manner, conforming to the ideals of the University. For further information write to:

Office of Admissions and Records
Tennessee State University
Nashville, Tennessee 37203

ARMY or NAVAL ROTC SCHOLARSHIPS are available to Tennessee State University students in the respective ROTC programs administered through Vanderbilt University. Information on application for these scholarships can be obtained from the Tennessee State University Office of Veterans Affairs.


ACADEMIC
SCHOOLS

Degree Programs Offered

1979-1981

Schools	Majors Offered	Degrees Offered
AGRICULTURE AND HOME ECONOMICS	Animal Science	B.S.
	Early Childhood Education	A.S., B.S.
	Home Economics	B.S.
	Home Economics Education	B.S.
	Plant Science	B.S.
	Rural Development	B.S.
ALLIED HEALTH PROFESSIONS	Dental Hygiene	B.S.
	Health Care Administration and Planning	
	Medical Records Administraton	B.S.
	Medical Technology	B.S.
ARTS AND SCIENCES	Art	B.S.
	Arts and Sciences	A.S., B.A., B.S.
	Biology	B.A., B.S.
	Chemistry	B.S.
	Criminal Justice	B.S.
	English	B.A., B.S.
	Foreign Language	B.A.
	History	B.A., B.S.
	Mathematics	B.S.
	Music	B.S.
	Political Science	B.A., B.S.
	Physics	B.A., B.S.
	Social Welfare	B.S.
	Sociology	B.S.
	Speech Communications and Theatre	B.A., B.S.
	Speech Pathology & Audiology	B.S.
BUSINESS	Business Administration	B.S.
	Business Education	B.S.
	Office Administration	B.S., A.S.
EDUCATION	Elementary Education	B.S.
	Health Education	B.S.
	Health and Physical Education	B.S.
	Psychology	B.A., B.S.
	Recreation	B.S.
	Education	B.S.

ENGINEERING AND TECHNOLOGY	Architectural Engineering	B.S.
	Civil Engineering	B.S.
	Electrical Engineering	B.S.
	Mechanical Engineering	B.S.
	Engineering	B.S.E.
	Industrial Technology	B.S.
	Technical Aeronautics	B.S.
	Transportation Services and Technology	B.S.
NURSING	Nursing	A.S. Certificate B.S. (4 years)

Graduate Degree Programs Offered

1979-1981

MAJOR	DEGREE OFFERED
Administration and Supervision	M.A.ED., M.ED., ED.S.
Adult Education	M.A.ED., M.ED.
Agricultural Sciences	M.S.
Biology	M.A., M.S.
Business Administration	M.B.A.
Business Education	M.A.ED., M.ED., M.B.E.
Chemistry	M.S.
Criminal Justice	M.C.J.
Curriculum and Instruction	ED.S.
Elementary Education	M.A.ED., M.ED.
Engineering	M.E.
English	M.A.
Guidance and Counseling	M.S., M.ED.
Health and Physical Education	M.A.ED., M.ED.
History	M.A., M.S.
Home Economics Education	M.A.ED., M.ED.
Industrial Education	M.A.ED., M.ED.
Music Education	M.A.ED., M.ED., M.A., M.S.
Psychology	M.S.
Public Administration	M.P.A.
Reading	M.A.ED., M.ED.
Recreation	M.S.
Secondary School Instruction	M.A.ED., M.ED.
Special Education	M.A.ED., M.ED.
Speech Communications and Theatre	M.A., M.S.

THE SCHOOL OF AGRICULTURE AND HOME ECONOMICS

THE SCHOOL OF AGRICULTURE AND HOME ECONOMICS
ROLAND NORMAN, Ph.D., Acting Dean

The school recognizes the value of well organized educational and research programs in agriculture and home economics to meet the challenges of the changing American society. As such, it devotes itself to the discovery and dissemination of knowledge which is essential to the development, conservation, allocation, and use of human resources as well as natural resources. The programs of study through the school are geared toward providing high quality training to students in their chosen areas of concentration and prepare them for various career opportunities or for further studies leading to advanced degrees.

The curricula in the school provide for four general areas of specialization. Whenever it is considered advantageous, students may select courses from disciplines other than their major fields of specialization. This can be accomplished by selecting appropriate courses in consultation with the faculty adviser assigned to the student.

CURRICULA

RURAL DEVELOPMENT
- Rural Economics & Community Resource Development Option
- Agricultural Education Option

ANIMAL SCIENCE
- Pre-Veterinary Medicine Option

PLANT SCIENCE
- Agronomy Option
- Horticulture Option

HOME ECONOMICS EDUCATION
HOME ECONOMICS
- Child Development and Family Relationships Option
- Clothing & Textiles Option
- Food & Nutrition Option

EARLY CHILDHOOD EDUCATION

DEPARTMENT OF ANIMAL SCIENCE
Dr. Norman (Head)

The Department of Animal Science offers a Curriculum of courses designed to (1) give instruction in the principles of (a) livestock production, management, sanitation, health, and (b) processing and caring for animal products, and (2) to prepare students to enter schools of Veterinary Medicine.

A major in Animal Science is offered leading to the degree of Bachelor of Science. To satisfy the requirements for the degree without teacher certification, the student must complete a minimum of 24 credit hours in the major field, with a minimum of 10 hours in 300 and 400 level major

field courses. A student is eligible for graduation when 132 semester hours have been completed with a minimum cumulative grade point average of 2.0. A student who desires to minor in Animal Science must complete a minimum of 18 semester hours in the department. Work leading to the degree of Master of Science is offered.

Employment opportunities are available in the following areas: Meat Inspection, Livestock and Poultry Inspection, Dairy Plant Management, Research, Marketing, Extension Services and Livestock Management.

Student financial aid is available through the following sources: College Work Aid, Supplemental Educational Opportunity Grant, Basic Education Opportunity Grant, National Direct Student Loan and College Work-Study.

CURRICULUM FOR MAJOR IN ANIMAL SCIENCE

FRESHMAN YEAR	Credit Hours Fall	Spring
AG 111	1	
AEG 102		3
ART 133; MUS 131	2	2
AH 101; PLS 102	3	3
ENG 101, 102	3	3
MATH 111	4	
PE or AFROTC	1	1
GPA 221	3	
Elective (100 level)		3
	17	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
HIST 201, 202	3	3
ENG 211, 212	3	3
CHM 121, 122	3	3
PH 201, 202	3	3
MCR 250; HORT 202	3	3
PE or AFROTC	1	1
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
CHM 360; PH 302	5	3
AH 321, 302	3	3
AH 313, 322	3	3
RD 301, 302	3	3
PLS 300-400	3	3
Elective		3
	17	18

SENIOR YEAR	Credit Hours Fall	Spring
AH 311, 323	3	3
ENG 301, 302	3	3
AH 401, 402	3	3
AH 421, 422	1	1
BCHM 341, 342	5	5
AH 450	3	
Elective (300-400 level)		3
	18	18

PRE-VETERINARY MEDICINE

Students interested in Veterinary Medicine should, in addition to the courses listed in Animal Science curriculum, elect the following courses:

Physics—8 semester hours
Zoology—10 semester hours
Embryology—3 semester hours
Physiology of Reproduction—3 semester hours
Poultry Husbandry—303—3 semester hours
Poultry Husbandry—403—3 semester hours
Poultry Husbandry—422—3 semester hours

Course Descriptions

ANIMAL HUSBANDRY (AH)

AH 101. Introductory Animal Husbandry. (3) Devoted to the adaptation of the different classes of farm livestock to varying farm conditions and to the relationship of each class to the other in different farm plans. A careful study of correct type of livestock in relationship to economical production and market demands. Two lectures and one laboratory period.

AH 211. Introduction to the Care and Riding of Light Horses. (3) Designed for men and women in the University who are interested in horseback riding. Elementary principles of feeding, housing, training and riding light horses given; the proper care and adjustment of riding equipment also stressed. One lecture and two laboratory periods.

AH 302. Livestock Management. (3) Nutrient requirements for farm animals, livestock feeds, nutrient contents, and factors affecting value, management, marketing procedures and practices.

AH 311. Feeds and Feeding. (3) A study of the basic principles of feeding farm animals, feeding standards, balanced rations, composition and nutritive value of feeds, Two lectures and one laboratory period.

AH 313. Disease and Parasites. (3) A study of the causes, symptoms, and treatment of general diseases and parasites of livestock and poultry with special emphasis on sanitation. Prerequisite: Biology 241. Two lectures and one laboratory period.

AH 321. Swine Production. (3) A study of the breeding, management, feeding and marketing of swine. Emphasis placed on both pure bred and commercial production. Two lectures and one laboratory period.

AH 322. Beef Cattle Production. (3) History, development, and distribution of breeds; sources of cattle and carcass beef, production and distribution in cattle feeding, commercial and pure bred breeding herds. Performance testing and S-10 Beef Cattle Programs. Two lectures and one laboratory period.

AH 323. Evaluation and Judging Dairy Products. (3) Composition, use, market grades, methods of storage and factors affecting keeping quality of dairy products, judging, scoring, and placing dairy product in accordance with their values.

AH 401. Market Milk. (3) A study of the procurement, processing and sale of milk and the bacteriological, chemical and physical aspects of market milk processing, prerequisites: AH 301—two lectures and one laboratory period.

AH 402. Science of Meat. (3) Composition, physical, chemical and nutritional properties of meat and meat products. Biochemical alterations of meat during aging, curing, processing and storage.

AH 403. Dairy Farm Operations. (3) A study of general farm operation, adaption of the herd to available facilities, factors affecting production, balancing rations for dairy cattle, disease control, principles of modern dairy cattle breeding, arrangement and development of dairy farm buildings. Prerequisites: Animal Husbandry 311. Two lectures and one laboratory period.

AH 421-22. Seminar. (2) Devoted to discussions of current literature and problems in animal husbandry. Required of seniors majoring in the department. One hour credit each semester. One lecture.

AH 450. Senior Project. (3) Required of all Animal Husbandry majors.

AH 451E. Physiology of Reproduction. (3) Fundamental principles of the physiology of reproduction with primary emphasis on farm animals. Anatomy of the male and female

reproductive tracts; hormones, estrus and estrus cycle; ovulation, gestation, parturition, lactation, fertility, sterility and artificial insemination.

POULTRY HUSBANDRY (PH)

PH 201. Principles of Poultry Production. (3) The principles and practices underlying reproduction and growth of the domestic fowl; also the study of breeds, varieties, and types of poultry. Required of all majors in Agriculture. Two lectures, and one laboratory period.

PH 202. Principles and Practices of Incubation and Brooding. (3) Designed to give the environmental factors affecting incubation, embryo development, operation of incubators, and methods of brooding. Required of majors in Agriculture. Two lectures and one laboratory period.

PH 302E. Animal and Plant Genetics. (3) A study of the fundamental laws of heredity and their relation to plants and animals. Two lectures and one laboratory period.

PH 303. Processing Poultry Products (3) A detailed study of grades and classes of market poultry and eggs; methods of processing, storage, preservation, and problems in plant operations. Two lectures and one laboratory period.

PH 403. Poultry Hygiene and Sanitation. (3) Designed to give the major principles underlying sanitation and disease prevention as applied to the poultry farm. Two lectures and one laboratory period.

PH 422 Poultry Nutrition and Feeding. (3) Designed to give the students the major principles of poultry nutrition, including required nutrition by poultry and means of supplying these nutrients under practical feeding conditions. Poultry feedstuffs, ration formulation, and feeding practices considered. Two lectures and one laboratory period.

DEPARTMENT OF PLANT SCIENCE
Dr. McAlpin (Head)

The Department is designed primarily to acquaint students with the principles of Plant Science. The curriculums are arranged to give students a broad knowledge of Agronomic and Horticultural sciences, the conservation of the renewable natural resources, and Landscape Architecture.

Three undergraduate curriculums are offered with options in Plant Science, Horticulture Education, and Landscape Architecture. A student seeking an option in one of these disciplines will structure his program in accordance with that curriculum.

Graduate students may pursue studies in Plant Sciences leading to the Master of Science degree in Agricultural Sciences. A description of these requirements can be found in the Graduate School bulletin.

CURRICULUM FOR A MAJOR IN PLANT SCIENCE

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
AG 102	3		AG 210, 202	4	4
AG 111; AEG 102	1	3	HORT 200, 201	3	3
MUS 131; ART 133	2	2	HIST 202	3	
ENG 101, 102	3	3	CHM 121, 122	4	4
MATH 111, 112	4	3	PE or AFROTC	1	1
AH 101; HIST 201	3	3	GPA 221; ENG 211	3	3
PE or AFROTC	1	1		18	15
	17	15			

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
ENG 300, 301	3	3	AG 400, 401	3	4
AG 311; HORT 340	4	3	AG 411, 412	1	1
ENG 212		3	BCHM 310; AG 402	4	4
AG 301, 350	3	3	AG 450, 300	4	4
AG 321, 322	3	3	HORT 452	3	
Electives (300-400 level)	3	3	Electives (300-400 level)	2	3
	16	18		17	16

OPTION IN HORTICULTURE

All freshman and sophomore students take courses outlined in the Plant Science Curriculum for freshmen and sophomores. Students may concentrate on either Ornamental Horticulture and Floriculture or Olericulture and Pomology.

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
PSY 242; HORT 340	3	3	PSY 312; ED 371	3	3
EDUC 201; HORT 360	3	3	EDUC 301, 371	3	3
AGED 301, 302	3	3	HORT 400; AGED 472	3	10
EDUC 387; HORT 372	3	3	HORT 450	3	
AGRON 300, 322	4	3	HORT 451	3	
HORT 352		3	Electives (300-400 level)	2	
	16	18		17	16

Students interested in Cooperative Education should elect special Problem Courses 480—PLS 480.

Students interested in Soil Conservation must take a minimum of 15 semester hours in soils. They may elect Agronomy 302.

Students interested in Bee Keeping may elect to take API 400.

DEPARTMENT OF PLANT SCIENCE

AGRONOMY (AGR)

AGR 102. Plant Science (3) A one semester, introductory course in Plant Science that exposes students to the principles of crop science, horticulture, and conservation of the renewable nature resources. Two lectures and one laboratory period per week.

AGR 202. Soil Science. (4) A study of the origin, structure, general nature of soil and the factors related to soil fertility, maintenance, and fertilizer practice. Three lectures and one laboratory period.

AGR 210. General Agriculture Botany. (4) Designed to provide a broad understanding of the fundamental facts and principles of botanical sciences. Three lectures and one laboratory period.

AGR 300. Plant Physiology. (4) Application of Plant Physiological principles to seed plants with special emphasis on photosythesis, respiration, absorption, transpiration and nutrition. Three lectures and one laboratory period.

AGR 301. Crop Science. (3) A general study of the distribution, culture, use and climatic adaptation of the major agronomic crop plants. Three lectures and one laboratory period.

AGR 302. (2) Soil and Water Conservation Engineering. A study of the factors affecting runoff and erosion. Design and layout of soil conservation practices. Two laboratory periods. Required for persons interested in Soil Conservation Service Cooperative Education.

AGR 311. Elementary Soil Classification (4) An introductory study of the principles of soil classification and land judging. Required of majors in Agronomy. Prerequisities: AGR. 202. Three lectures and one laboratory period.

AGR 320. Economic Entomology. (3) Provides a brief review of the structure, morphology, controls and the recognition of economic insects as related to agriculture. One lecture and two laboratory periods.

AGR 321. Farm Weed and Their Control. (3) A one semester course work on the identification, eradication, and economic value of the important weeds of fields and pastures. Elective for any department. Two lectures and one laboratory period.

AGR 322. Plant Pathology. (3) A study of the diseases of the most important agricultural plants of Tennessee and the South. Emphasis on the nature of the disease, recognition and control measures. Two lectures and one laboratory period.

AGR 350. Plant Breeding. (3) Application of genetic principles to the improvement of economic crop plants; methods and procedures of plant breeding. Two lectures and one laboratory period.

AGR 400. Legumes and Pastures. (3) Provides information on the important legumes. Adapted to the climate of Tennessee, and characterizes the Forage and Pasture Programs of Tennessee. Two lectures and one laboratory period.

AGR 401. Soil and Water Conservation and Management. (4) A study of the principles of tillage, drainage, fertilization and rotation practices as they affect the productive capacity of field soils. Three lectures and one laboratory period.

AGR 402. Advanced Soil Fertility. (4) A study dealing with the determination of nutrient deficiencies in soils and plants by rapid methods, and recommendations of corrective measures. Prerequisites: AGR 202, CHM 361, BCHM 312. Two lectures and two laboratory periods.

AGR 411-412. Seminar. (1-1) Includes the discussion of current topics, lectures and demonstrations in Agronomy and related areas.

AGR 450. Senior Project. (3) Required of all Plant Science majors.

HORTICULTURE (HRT)

HRT 200. Vegetable Gardening. (3) A basic study of the principles and practices of vegetable production. Two lectures and one laboratory period.

HRT 201. Principles of Fruit Growing. (3) A study of the principles and practices involved in the culture of orchard plants. Two lectures and one laboratory period.

HRT 202. Landscape Design. (3) An elementary course in landscape design for small properties.

HRT 204. Ornamental Horticulture. (3) An elementary course of principles and practices involved in the production of flowers and ornamental plants. Two lectures and one laboratory period.

HRT 340. Propagation of Horticultural Plants. (3) A study of the methods of propagation of horticultural plants including seedage, cuttage, and grafting of both economic and ornamental plants. Two lectures and one laboratory period.

HRT 352. Floriculture. (3) A course dealing with the principles underlying culture of greenhouse crops, commercial cut flowers and house plants.

HRT 360. Forestry. (3) A study of forest conservation and management and the relation of forestry to agriculture, including the influence of the forest on climate, stream flow and erosion. Two lectures and one laboratory period.

HRT 372. Landscape Plants and Design. (3) A study of landscape composition dealing with the designing of small lots, city property, public grounds and large estates. The use of ornamental plants such as trees, shrubs and flowers and their identification.

HRT 400. Greenhouse Operation and Management. (3) An elementary course of principles involving greenhouse site selection, types of structure, covering materials, heating and cooling systems and cultural practices for producing flowers and ornamental plants. Two lectures and one laboratory period.

HRT 401. Growth, Development and Processing of Vegetables. (3) A study of breeding procedures in establishing a new strain and variety of vegetables and the processing and grading of vegetables for the market.

HRT 452. Urban and Off-Farm Plant Science. (3) A study involving nursery establishment and management, flowers and shrub production and marketing, the care of house plants. Two lectures and one laboratory period.

HRT 402. Growth, Development and processing of fruits. (3) A study of breeding procedures in establishing new strains and varieties of vegetables and the processing and grading of fruits for the market. Two lectures and one laboratory period.

HRT 450. Turf Management. (3) This course will deal with establishing lawns, soil preparation, seeding. watering, fertilization, clipping, and general management. Corrective measures in established lawns. Care of golf course greens.

HRT 451. Floral Design. (3) A course dealing with the essentials of flower arrangement. One lecture and two laboratory.periods.

API 400. A course involved in Bee establishment and management.

PLS 480. Social Problems. (3-8) A course designed to give students experience in the various endeavors of Plant Science, including working in industry.

CURRICULUM IN LANDSCAPE DESIGN:

LA 433, 434, 435, Ethics & Practice (Landscape) professional ethics, office management and principles of superintendence.

LA 471. Plant Material. (3) The identification, environmental requirements and landscape assets and liabilities of ornamental plants.

LA 472. Plant Material. (3) Forestry Greenhouse Crops (The productions of major cut flowers and pot plant crops, including propagation, cultural requirements, harvesting, grading and packing.

HRT 211. Planting Design. (3) An elementary study of the apprasial of plants, as design elements, and their arrangement in the landscape. The design of small property lots.

LA 300. (3) Landscape Architecture Practice. Summer vacation employment of at least (10) ten weeks duration in a landscape architecture enterprise approved by the adviser.

HRT 360. Landscape Ecology (Forestry). (3) Ecological relationships involved in the design and modification of environment, with particular emphasis on the visual impact.

LA 421. Parks, School Grounds, and Recreation areas. (3) Principles of landscape design, related to the location and development of land for schools, parks, and recreational uses. Topographical factors and construction and maintenance problems. Planned for students in recreation, urban planning, and educational administration. Lectures, reports, study tips and projects.

DEPARTMENT OF RURAL DEVELOPMENT

DR. TELWAR (Head)

The Department of Rural Development offers major programs leading to the degree of Bachelor of Science in Rural Development with two options: (1) Rural Economics and Community Resource Development, and (2) Agriculture Education.

The major objective of the Department is to provide broad applied training for people who wish employment working with rural people. The curriculum in Rural Development provides for a liberal, interdisciplinary education about rural affairs coupled with training of a problem-solving nature or in teacher education for secondary school vocational agriculture teachers. Students in the Department are expected to select course work in applied economics, sociology, communication and selected technical areas in addition to the standard University requirements for graduation. However, because of the training goals of the Department, individual students plan their curriculum in advisory sessions with the faculty to meet their personal career goals.

The applied problem solving training in the Department is designed to provide students with skills useful in employment in community resource development, extension, general agricultural extension, vocational agricultural teaching, community planning offices, governmental agencies such as farmers Home Administration, The Agricultural Stabilization and Conservation Service, and the Statistical Reporting Service and with private companies in sales and middle management positions. Students with definite career goals in private agriculturally related businesses will be counseled to select a minor in business management and accounting.

CURRICULUM FOR A MAJOR IN RURAL DEVELOPMENT

FRESHMAN YEAR	Credit Hours Fall	Spring
AG 111; AEG 102	1	3
RD 201, 202	3	3
MATH 111; RD 200	3	4
ENG 101, 102	3	3
ART 133; MUS 131	2	2
*PE or AFROTC	1	1
Electives	6	—
	19	16
Total 32 hours		

SOPHOMORE YEAR	Credit Hours Fall	Spring
SCI 121, 122	3	3
ENG 211, 212	3	3
HIST 201, 202	3	3
RD 301, 302	3	3
*PE or AFROTC	1	1
Electives	3	3
	16	16
Total 32 hours		

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit hours Fall	Spring
AEG 301, 302	3	3	RD 401, 402	3	3
RD 311, 312	3	3	RD 404, 450	3	3
RD 303, 304	3	3	AEG 400; RD 403	3	3
Electives (300-400 level)			Electives (300-400 level)		
Option I			Option I		
or			or		
Option II	8	8	Option II	9	9
	17	17		18	18
	Total 34 hours			Total 36 hours	

Option I—Electives (Rural Economics and Community Resource Development)
ECON 302, 307, 315
BA 323, 326, 331
MATH 161

Option II—Electives (Agricultural Education)
ED 201, 301, 387, 491
PSY 242, 312
BIO 111, 112
AED 301, 302, 472

Option I, II—Technical Areas
AH 101, 211, 302
PH 201, 202
PLS 102, 301, 320
HRT 200, 201

COURSE OFFERINGS

RURAL DEVELOPMENT (RD)

AG 111. Orientation. (1) Careers in Agriculture.

RD 200. Mathematical Foundations for Statistics. (3) A survey of elementary methods of handling data used in Economics and Statistics. The course will include some basic Algebra and simple measures of dispersion and of central tendency. Methods of presenting data in tabular form will be discussed.

RD 201. Introduction to Rural Economics. (3) Application of principles and methods of economics to the rural economy with an emphasis on agriculture including the organization, management, marketing, and finance of rural enterprises, and evaluation of politics, programs, and institutions.

RD 202. Community Development. (3) Analysis of the function, structure, practices and trends of the contemporary community.

RD 301. Agricultural Marketing. (3) An understanding of the operations of food marketing (theory of marketing) and a familiarity with many of the descriptive and factual aspects of food marketing.

RD 302. Farm Management. (4) Organization planning and operating farm business to make the most effective use of available resources and procedures for making economic decisions.

RD 303. Rural Finance. (3) An examination of the rural credit institutions and the role of credit in the development of rural economics.

RD 304. Cooperatives. (3) A study of the history and present status of cooperatives; what they have done and tried to do for communities, their problems, finance and control.

RD 311. Introduction to Applied Statistics I. (3) Basic concepts and principles of measurements, data collection, scientific investigation, and survey design. Topics include statistical measures of central tendency and dispersions, probabilities, normal and other distribution tests of numbers, and summarization techniques. Prerequisite: Nine hours of college math.

RD 312. Sample Survey Theory and Techniques. (3) A practical course in conducting, analyzing, and summarizing simple surveys. Includes review of probability, distribution, and statistical measures; simple random sampling, stratified, systematic and cluster sampling; multiframe, objective measurement, and enumerative surveys; sampling and non-sampling errors. Prerequisite: RD 311.

RD 401. Community Development. (3) Analysis of the meaning, structure and function of community development with emphasis on the factors important in community change.

RD 402. Community Resources, Organization and Problems. (3) Planning and management of Resources, understanding of the principles and forces of change most pertinent to community organization and problems in development of rural areas.

RD 404. Experimental Design. (3) Includes review of scientific investigation principles and statistical inference. Subjects include analysis of variance and covariance, non-parametric and analysis, multiple comparison test and experimental designs. Designs cover are randomized block, balanced block, latin square, factorial, split plot, rectangular latice and augmented. Greater emphasis placed on logic rather than on mathematics. Prerequisite: RD 311.

RD 450. Senior Project. (3) A study and discussion of senior projects on which students have been working (under direction) for at least one semester.

AGRICULTURAL EDUCATION (AED)

AED 301. Organizing Agricultural Programs for Rural Groups. (3) The primary objective of the course is to thoroughly acquaint the students with the nature of adult learning and with proven methods of organizing and implementing educational programs for adult groups and individuals. The dynamic group action will be considered and application made to determine the most effective methods and techniques for assisting adults to solve problems in agriculture and community living.

AED 302. Methods of Teaching and Management in Vocational Agriculture. (3) This course acquaints the students with the work of the teacher of vocatioanl agriculture and prepares him for his observation and student teaching. It deals with the selection of teaching methods, preparation of lesson plans, planning, supervised practice programs, activities, making records and reports, securing and organizing teaching aids, and selecting and procuring library, laboratory, office and class room equipment and the promotion of the vocational agriculture and FFA programs.

AED 472. Student Teaching in Agricultural Education. (10) A course designed to familiarize and give experience to prospective teachers of Vocational Agriculture in all phases of the program.

AGRICULTURAL ENGINEERING (AEG)

AEG 102. Agricultural Engineering. (3) The fundamental principles of agricultural engineering dealing with skill, judgement and resourcefulness in the areas of farmshop work, farm power machinery, farm building, rural electrification, and soil and water management. One lecture and two laboratory periods.

AEG 301. Farm Mechanics. (3) The repair, operation and construction of tillage, seeding, and harvesting machinery, and such service implements as wagons, manure spreaders, and fertilizer distributors. A part of this course includes a study of the construction, operation, and servicing of gas engines and tractors in the laboratory. One lecture and two laboratory periods.

AEG 302 Planning Low Cost Housing. (3) Determining the functional requirements of farm houses for given situations, size and arrangements of rooms, location and size of doors, windows, electrical outlets and water supply. Planning principles, materials and finishes. Emphasis on low cost housing as provided for in the Federal Housing Act, especially for home economics, business administration and agriculture students who expect to teach or become affiliated with the Agriculture Extension Service or the Farmers Home Administration. One lecture and laboratory period.

AEG 400. Special Problems. (3) A student chooses a problem requiring laboratory or field work with special laboratory research. Offered during any semester. Prerequisite approval of department head. One lecture and two laboratory periods.

AEG 401. Farm Buildings, Equipment and Conveniences. (3) Elementary scale drawing and plan reading, farmstead layout, operation and maintenance of electric equipment; functional requirements of farm houses, shelters, and storages, water systems; septic tanks and sewage disposal; heating, cooling, etc. One lecture and two laboratory periods.

DEPARTMENT OF HOME ECONOMICS

DR. GREER (Head)

The purpose of the undergraduate program in the Department of Home Economics is to provide, through the facilities of the Department and the University, both a liberal and specialized education in which the interests and well-being of individuals, family members, and consumers are significant. The program of liberal studies is based in the natural and social sciences, the humanities, and the arts and is designed toward man's understanding of himself and his relationship to his environment. Specialized studies provide an understanding of man's needs and interests specifically with regard to nutrition, food, health, clothing, textiles, housing management of resources, care and guidance of children, interpersonal relationships, and family relationships. With emphasis on breadth of knowledge and its application to the solution of contemporary human problems, Home Economics provides education required for successful professional work performance in an ever-increasing variety of positions made possible in a society characterized by rapid technological and sociological change.

The Department of Home Economics seeks to prepare men and women for (1) leadership roles in professional fields, (2) graduate and professional specialization, (3) teaching on all levels (nursery school/kindergarten to graduate), (4) careers in business areas, (5) consumer competence, (6) community service, (7) civic responsibility, (8) aesthetic appreciation, (9) social understanding, (10) wholesome family and interpersonal relations, and (11) an improved quality of life.

In keeping with the purposes of higher education the Departmental program is based on its commitment to excellence in instruction, research, and public service.

The Department of Home Economics is fully accredited by the American Home Economics Association.

STUDENT ORGANIZATIONS

The student member section of the American Home Economics Association (AHEA/SMS) is a professional organization, open to all students majoring in Home Economics, regardless of concentration interest. Membership is expected of all students. Other professional organizations within the Department include the Dietetic Club, open and expected of Food and Nutrition majors, and the Beta Sigma Chapter of Kappa Omicron Phi, National Honor Society in Home Economics. Kappa Omicron Phi is open to Departmental majors who achieve scholastically and meet membership requirements.

DEGREE REQUIREMENTS

A candidate for the Bachelor of Science degree in Home Economics must complete the minimum University requirements for graduation with a 2.0 or better quality point cumulative average as outlined in the University catalog. The minimum requirements include general studies and general home economics components designed to prepare students in the areas of behavioral and humanistic studies, natural sciences, communications, and the areas of specialization. The components provide an awareness of the political, social, and economic forces in society and the impact of these forces on individuals and families.

Degree candidates in areas of teacher certification must meet requirements designed for teacher education as outlined in the University catalog.

Departmental students who qualify for participation in the University Honors Program are encouraged to seek entrance to the program. Participants in the Honors Program will be graduated with University Honors if all requirements are met. Minimum requirements are listed in the University catalog.

CURRICULA

The Home Economics Department offers programs at the undergraduate level in the following areas:

Early Childhood Education
Home Economics Education

Home Economics, with options or concentrations in:
Child Development and Family Relationships
Foods and Nutrition
Clothing and Textiles

All curricular programs include general and professional studies to provide depth, breadth, and quality in the preparation of home economists. Concepts included in the over-all programs meet the following four criteria: (1) universality, (2) relevance to today and the future, (3) continuity, and (4) adaptability. There is a common body of knowledge or core derived from the general studies component and from specific courses in home economics and which is also relevant to each of the areas of specialization. The concepts common to all programs include some understanding of: (1) the family in society, (2) human growth and development in relation to nutrition, (3) human development and its relation to the family, (4) management of human and material resources, (5) aesthetic qualities in the environment, (6) the influence of science, technology, and consumer economics upon families and family members, and (7) the philosophical base of home economics and the relation of its specialties to the field as a whole.

The common discipline includes the professional abilities to: (1) identify needs, values, and problems of individuals, families, and groups of families in various levels of society; (2) recognize unique contribution of home economics to these needs and also contributions of other related professions; (3) seek out the specific knowledge and resources appropriate to the solution of individuals or family problems; (4) use the most effective means of applying the knowledge to meet the needs; and (5) evaluate the results of this diagnosis of need, knowledge brought to bear, and application of such knowledge, in order to improve the professional performance.

A variety of program possibilities can be explored by students within the Department and with other programs. Election of a minor field is encouraged.

HOME ECONOMICS EDUCATION

A major in Home Economics prepares for the achievement of competencies important to teaching in public and private schools, vocational schools, and in specialized adult education programs. It also prepares for positions in Extension Service, Home Economics in Business and Industry. The curriculum in Home Economics meets the requirements set up by the Tennessee Board of Vocational Education for teaching home economics, and is designed to qualify graduates to teach vocational home economics under the requirements of the National Vocational Education Acts. Majors must meet admission and retention requirements for Teacher Education.

CURRICULUM FOR HOME ECONOMICS EDUCATION
(Bachelor of Science Degree with Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
HIST 201-202	3	3
MATH 111, CHM 121	4	4
PE or AFROTC	1	1
HE 101, RA 201	1	2
C&T 111, FDS 111	3	3
ART 133 or MUS 131	2	
	17	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-212	3	3
ZOO 201, HEEd 312	4	3
C&T 211, PSY 242	3	3
FDS 223, NTR 211	3	3
ED 201, *SOC SCI Elective	3	3
PE or AFROTC	1	1
	17	16

JUNIOR YEAR	Credit Hours Fall	Spring
C&T 321; PSY 312	3	3
HEED 387; *HEED Elective	3	3
ED 301		3
CDFR 351; *CDFR Elective	3	3
NTR 411 or *NTR Elective	3	
HMGT 321-433	3	3
RA 323, PHIL 323	2	2
	17	17

SENIOR YEAR	Credit Hours Fall	Spring
ED 465-491	3	3
CDFR 463	3	
HEED 371		3
HEED 450	3	
HEED 472		9
*Electives	8	
	17	15

*Electives should be chosen with approval of major adviser.

Curriculm for Occcupational Home Economics Endorsement

Home Economics Education majors who also desire certification with occupational endorsement may elect from three endorsements: (1) Option I-Food Management, Production, and Service; (2) Option II-Clothing Management, Production, and Service; or (3) Option III-Care and Guidance of Children.

Occupational Endorsements (select one)		12-15
Option I—Food Management, Production, and Service	13-14	
HEEd 443 or 543	3	
HEEd 460	2	
Fds 313-412	6	
Fds 452	3	
Option II—Clothing Management, Production, and Service		12-15
HEEd 443 or 543	3	
HEEd 459	2	
C&T 401 and/or 403	2-5	
C&T Elective	3	
C&T 322	2	
Option III—Care and Guidance of Children		12-13
HEEd 443 or 543	3	
HEEd 458	2	
CDFR 332	2	
CDFR 452-460	6	

EARLY CHILDHOOD EDUCATION

The Early Childhood Education Program is a joint offering of the Administration, Curriculum, and Instruction Department and the Department of Home Economics. It is designed to prepare competent and qualified teachers and teaching assistants for work with children during their nursery, kindergarten, and primary-grade years. The learning experiences are arranged so that a student may qualify for employment as a teaching assistant after completion of two years of study—the Associate Degree Program. The students who choose to remain (or return) for an additional two years can earn the Bachelor of Science degree and complete requirements for certification as a teacher at the kindergarten primary level.

A special feature of the program is the provision for early laboratory experiences with young children prior to student teaching. Well designed and equipped nursery school and kindergarten laboratories are located on campus in the recently constructed Home Economics Building.

CURRICULUM FOR EARLY CHILDHOOD EDUCATION
(Bachelor of Science Degree with Certification K-3)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
CDFR 101, HEA 151	3	2
MATH 111	4	
SCI 121-122	4	4
ART 133 or MUS 131		2
PE or AFROTC	1	1
HE 101	1	
GEO 171 or 172		3
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-212	3	3
ED 201	3	
HIST 201-202	3	3
CDFR 201-332	3	2
C&T 112, PSY 242	2	3
PE 300	2	
HEA 307e		2
MATH 120		3
PE Electives (20's-50's)	1	1
	17	17

JUNIOR YEAR	Credit Hours Fall	Spring
MUS 301, ART 360	3	3
SCI 301	3	
ED 301-387	3	3
PSY 312, CDFR 351	3	3
*CDFR 352	2	
CDFR 464		3
ENG 32 or LS 363	3	
NTR 433		2
Electives (300-400 level)		3
	17	17

SENIOR YEAR	Credit Hours Fall	Spring
ED 322	3	
CDFR 460-461	3	3
ED 324		3
ED 321		3
CDFR 472		9
CDFR 450 or HE 450	3	
ED 465	3	
Elective (300-400 level)	3	
	15	18

Students with a concentration in Child Development and Family Relationships who desire certification should elect a minor in Home Economics Education.
(Follow Teacher Program)
*Child Development with Home Economics Education Minor

HOME ECONOMICS (Child Development and Family Relationships Concentration)

A major in Home Economics with concentration in Child Development and Family Relationships prepares graduates (1) to work with children in nursery schools, day care centers, and other insitutions concerned with children; (2) to serve as Child Development and Family Relationships specialists at state and local levels, directors of programs for children in Religious Institutions, and leaders of Girl Scouts programs. An additional focus offers academic and practical experiences centered around the developmental tasks of young children and is designed in cooperation with Elementary Education. Students desiring teacher certification in public school kindergartens and elementary schools will take additional education courses to meet certification requirements.

CURRICULUM FOR CHILD DEVELOPMENT AND FAMILY RELATIONSHIPS
(Bachelor of Science Degree with or without Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
ART 133, MUS 131	2	2
PE 111 or 112 or AFROTC	1	1
MATH 111		4
SCI 121-122	3	3
CDFR 101	3	
HIST 201-202	3	3
HE 101	1	
	16	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-212	3	3
RA 201		3
PE or AFROTC	1	1
ZOO 201, NTR 211	4	3
ED 201, PSY 242	3	3
CDFR 201-332	3	2
C&T 111, SP 111	3	3
	17	18

JUNIOR YEAR	Credit Hours Fall	Spring
HMGT 321 or HMGT 433	3	3
CDFR 351-353	3	2
CDFR 352-433	3	3
NTR 433, CDFR 460	2	3
ED 301	3	
PSY 311 or 312*		3
SOC 211		3
Electives (300-400 level)	3	
	17	17

SENIOR YEAR	Credit Hours Fall	Spring
CDFR 461-462	3	3
CDFR 463-450, HE 450	3	3
CDFR 464-466	3	9
Electives	7	
	16	15

Students with a concentration in Child Development and Family Relationships who desire certification should elect a minor in Home Economics Education.
(Follow Teacher Program)
*Child Development with Home Economics Education Minor

Courses Required	Credit Hours
HEEd 312	3
HEEd 387	3
HEEd 371	3
HEEd 472	9
Ed 465	3
Ed 491	3

Fds 111-223	6
C&T 211-321	6

*Elect Psy 312 rather than 311, Elect HMgt 321 and 433

Curriculum in Early Childhood and Child Development (Associate Degree)

The Early Childhood and Child Development associate degree curriculum is a two-year program designed to prepare students for employment in nursery schools, day care centers, and pre-school enrichment programs. The curriculum is competency based and can be credited toward the four-year program for a Bachelor of Science degree, if desired.

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
Eng 101-102	3	3	Hlth 201	2	
Sci 121-122	4	4	Eng 211-212	3	3
Art 1332or Mus 131	2		Ed 201	3	
Hlth 151		2	Hist 201-202	3	3
Math 111		4	Psy 242		2
CDFR 201-166	3	2	CDFR 232-266	2	3
PE 11-12	1	1	CDFR 251-252	3	3
CDFR 101	3		CDFR 253	2	
	—	—	Spch 210 or 220		3
	16	16		—	—
				18	17

COURSE OFFERINGS

Curriculum in Early Childhood and Child Development

CDFR 166. Observations and Internship. (2) Course provides opportunities for observation and practice work in pre-school programs for young children.

CDFR 232. Art for Young Children. (2) Course includes self-directed activities in art and creative play experiences.

CDFR 251. The Young Child. (3) A contemporary modularized course of instructions designed to familiarize students with the philosophy and basics of child development and to increase their competencies in working with children. Outside experiences, guest lectures, and multi-media approaches are arranged.

CDFR 252. Observation. (3) Observation in nursery school, kindergarten, an other pre-school programs for young children.

CDFR 253. Internship in Infant Programs. (2) Observation and participation in infant laboratories.

CDFR 266. Internship in Early Childhood and Child Development. (3) Course provides participaton and fieldwork in community nursery schools and other pre-school programs for young children.

HOME ECONOMICS (CLOTHING AND TEXTILES)

A major in Home Economics with concentration in Clothing and Textiles opens many possibilities to students who wish to use clothing in a general sense for their personal and family development, to those who have a well-defined vocational aim, and to those who anticipate graduate study.

Opportunities for employment in Clothing and Textiles may be grouped into three broad categories as (1) manufacturing, (2) merchandising, and (3) consumer services, including teaching. The level at which any individual student may enter the field depends on other factors not included in the curriculum. A students' prior work experience and academic competence tend to be related to the level of entry in the job market.

Specific careers open to the graduate may include (1) Assistant Buyer, (2) Assistant to the Buyer, (3) Trainee, (4) Assistant to the Manager, (5) Consumer Representative, (6) Clothing Specialist and, (7) Free Lance Dressmaker and Designer.

CURRICULUM FOR HOME ECONOMICS (Clothing and Textiles)
(Bachelor of Science Degree)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
C&T 111-112	3	2
MATH 111-112	4	3
HE 101		1
FDS 111, RA 201	3	2
ART 133		2
PE or AFROTC	1	1
HIST 201-202	3	3
	17	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-212	3	3
C&T 203-211	3	3
PSY 201	3	
FR 101 or 201*	4	
CHM 121-122 or other SCI	4	4
SP 210 or 220		3
GPA 221 or SOC SCI		3
PE or AFROTC	1	1
	18	17

JUNIOR YEAR	Credit Hours Fall	Spring
C&T 300-302	3	3
CDFR 351	3	
HMGT 321	3	
PHIL 323 or THEA 301		2
ENG 301		3
RA 301		2
NTR 312	3	
MK 326		3
**Electives	3	3
	15	16

SENIOR YEAR	Credit Hours Fall	Spring
C&T 321-403	3	3
C&T 450 or HE 450	3	
RA 323-421	2	3
CDFR 463	3	
MK 328	3	
HMGT 322***		3
**Electives	3	6
	17	15

*If High School Record shows One (1) year of French.

**Electives should be chosen with the approval of the advisor. Students interested in retailing and merchandising should, in addition to the courses listed in the Clothing and Textiles curriculum, elect from the followng courses: C&T 320, C&T 401, C&T 413; Marketing 329, 334, 350, 412, 431, 444, or 451.

***Foods 452 may substitute for Home Management 322.

HOME ECONOMICS (FOODS AND NUTRITION)

A major in Home Economics with concentration in Foods and Nutrition is designed to develop (1) sound basic up-to-date knowledge in the field of foods and nutrition, (2) the ability to interpret basic facts and apply sound judgement in the translations of these facts to actual situations, and (3) to develop the skills and techniques required to apply basic principles to methods of preparation. The program is designed to meet the requirements for entrance into an approved dietetic internship—or traineeship.

Graduates with a concentration in foods and nutrition may choose a career in nutrition care, education and/or research; or may continue graduate studies. Some career opportunities are (1) Food Service Supervisor, (2) Dietitian, (3) Dietetic Assistant, (4) Industrial Feeding Specialist, (5) Airline Food Service Supervisor, (6) Dietitian for Restaurant Chain, (7) School Food Service Specialist, and (8) School Food Service Manager.

CURRICULUM FOR FOODS AND NUTRITION
(Bachelor of Science Degree)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
HIST 201-202	3	3
MATH 111-112	4	3
FOODS 111-223	3	3
HE 101, RA 201	1	2
PE 11-12 or AFROTC	1	1
ART 133 or MUS 131	2	
	17	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-212	3	3
CHEM 121-122	4	4
PSY 242, *SOC 211 or PSY 201	3	3
ZOO 201, NTR 211	4	3
ECON 211, C&T 111	3	3
PE or AFROTC	1	1
	18	17

JUNIOR YEAR	Credit Hours Fall	Spring
NTR 311, FDS 311	2	3
CHEM 360, BIO CHEM 320	5	4
CDFR 351, ENG 301	3	3
PHIL 323, MCRB 250	2	4
MS 301, *SOC 320	3	3
	15	17

SENIOR YEAR	Credit Hours Fall	Spring
FDS 412*, FDS 313* or 321	3	3
FDS 452* or 352, NTR 411	3	3
NTR 450, or HE 450	3	
HMGT 433, MS 423	3	3
HEEd 371, *PSY 311	3	3
NTR 453, *Elective	3	3
	18	15

*Required of students for dietetic programs.

Curriculum for Foods and Nutrition Minor

A minor in Foods and Nutrition may be elected by any student enrolled in the Department of Home Economics. Two options are available: (1) Foods and Nutrition or Food Service, and (2) Dietetics (with Diet therapy).

Courses Required	Credit Hours
Foods 111	3
Foods 223	3
Ntr 211	3
Ntr 311	2

Foods 313	3
Foods 412	3
Foods 452	3
Ntr 453	3

Curriculum for Related Art Minor

A minor in Related Art may be elected by any student enrolled in the Department of Home Economics or in any major field within the University. Three options are available, students may select one of the following: (1) Option I—Related Art Minor; (2) Option II—Interior Design Emphasis; or (3) Option III—Costume Design Emphasis.

Option I—Related Art Minor

Courses Required	Credit Hours
RA 201	2
C&T 203	2
RA 301	2
Art 241	3
RA 323	2
RA 350	2
RA 411	2
RA 421	3

Option II—Related Art Minor with Interior Design Emphasis

Courses Required	Credit Hours
RA 323	2
AE 201	2
C&T 203	2
RA 301	2
RA 201	2
RA 421	3
RA 411	2
HMgt 320	3
*Electives	5

Option III—Related Art Minor with Costume Design Emphasis

Courses Required	Credit Hours
RA 323	2
AE 201	2
C&T 203	2
RA 301	2
RA 201	2
RA 421	3
RA 411	2
HMgt 320	3
*RA Electives	5

*Upon the advice of the Related Art Instructor

Careers with a minor in Related Art include (1) Advertising Artist, (2) Clothing Designer, (3) College or High School Teacher, (4) Color Coordinator, (5) Consumer Information Specialist, (6) Costume Designer, (7) Crafts Instructor, (8) Department Store Buyer, (9) Display Designer, (10) Extension Specialist, (11) Fabrics Coordinator, (12) Fashion Illustrator, (13) Interior Decorator, (14) Magazine Editor, (15) Package Designer, (16) Product Developer, (17) Textile Designer, (18) Therapist, (19) Visual Aids Specialist, (20) Kitchen Planner, (21) Utility Home Economist, (22) Lighting or Laundry Consultant, (23) Equipment Designer, (24) Consumer Consultant and (25) Research Specialist.

COURSE OFFERINGS

HOME ECONOMICS EDUCATION (HEED)

HEED 312. Introduction to Vocational Education. (3) An introductory course specifically oriented to the philosophy and objectives of vocational education and the role of home economics in relation to it. Special emphasis is given to the study of consumer, homemaking and occupational home economics as major aspects of home economics in vocational education and the Vocational Education Acts.

HEED 371. Teaching Home Economics. (3) Emphasis is placed on the organization and administration of the school and the place of home economics within the school organization, the vocational homemaking program, the Vocational Education Acts, and the introduction to teaching strategies and tactics. Opportunity is provided for experimentation and operation of materials and teaching aids. Emphasis is placed on program planning for youth organizations, adult groups and home experiences. Supervised observation is required.

HEED 372. Special Problems in Home Economics Education. (3) Course is designed for individual and group projects focused on recent research findings and general depth in subject matter. A critical analysis of personal and academic problems related to teacher preparation will be undertaken.

HEED 373. Home-School-Community Programs in Vocational Home Economics. (2) Course is based on interpretation and requirements of federal, state, and local regulations in relation to vocational home economics.

HEED 387. Problems of the Curriculum and Teaching. (3) A study of the reorganization, construction, and administration of the home economics curriculum, specifically those under vocational education legislation. Attention is given to the historical analysis of home economics, the bases of curriculum planning, the competency-based approach, development of modules, interaction analysis and mico-teaching.

HEED 443. Occupational Home Economics Education. (2) Designed primarily for teachers and school personnel in vocational education. The course deals with (1) philosophy, legislative background, theory, and development of programs in pre-occupational home economics education; (2) the identification and application of research in problem solving; and (3) decision-making concepts applied to program design and implementation.

HEED 450. Senior Project Writing. (3) Instructs the student in techniques of professional writing, literature searching, and abstracting scientific material. Completion of acceptable project required. Open to all departmental majors.

HEED 458. Field Experience and Internship in Occupational Care and Guidance. (2) Supervised experiences are provided for internship in actual work experiences in industry. Course includes class seminars.

HEED 459. Field Experiences and Internship in Clothing Management, Production, and Service. (2) Supervised experiences are provided for internship in actual work experiences in industry. Course includes class seminars.

HEED 460. Field Experiences and Internship in Food Management, Production, and Service. (2) Supervised experiences are provided for internship in actual work experiences in industry. Course includes class seminars.

HEED 461. Educational Leadership in Adult Education. (3) Philosophy, organization, and administration of home economics programs for adults and out-of-school youths. Interests and needs of various age and social groups are studied in relation to methods and materials effective in group work. Findings of latest research and educational media such as radio and television are emphasized. Three lectures.

HEED 472. Observation and Student Teaching in Home Economics. (9) Experiences of supervised observation and teaching in the public schools in Tennessee are provided. Problems of organization and supervision basic to induction of teachers into the profession are explored. Supervised teaching is performed in off-campus teaching centers on a full-time basis for a period of nine weeks. Course is designed for both consumer and homemaking teacher education and for occupational home economics programs.

HEED 473. International Travel. (3) Study tour of European cultural centers, museums, and historical sites designed to develop an appreciation of the historical and cultural contributions of these countries. Visits include: England, France, Italy, Germany, Switzerland, Spain, Holland, and Portugal.

HOME ECONOMICS (HE)

HE 101. Home Economics as a Profession. (1) An orientation course required of all home economics majors. Designed to acquaint students with home economics professions and to the life of the University. Special emphasis is placed on the philosophy and legislative background of home economics in relation to its contributions to both general and professional education. One lecture.

HE 450. Senior Project Writing. (3) Instructs the student in techniques of professional writing, literature searching, and abstracting scientific material. Completion of acceptable project required. Open to all departmental majors.

EARLY CHILDHOOD, CHILD DEVELOPMENT, AND FAMILY RELATIONSHIPS (CDFR)

CDFR 101. Freshman Practicum. (3) A study of staff roles in a variety of pre-school programs for children in Middle Tennessee. The first half of the semester will be spent in observation, the second in a practicum as aide functioning in a variety of roles.

CDFR 201. Principles and Concepts of Child Development. (3) A study of the basic principles and concepts of growth and development which serve as a foundation in understanding children.

CDFR 332. Creative Arts for Young Children. (2) An interpretation and involvement with (1) art learning activities, (2) self-directed activities, and (3) integrated activities with emphasis on the role of creative play materials for the young child. Related activities and experiences with various old and new materials, and correlation of contemporary trends in Art Education. Observation and participation in the nursery school or kindergarten.

CDFR 351. The Young Child and His Family. (3) A contemporary based modularized course of instruction designed to familiarize students with the basics of child development and to increase their competencies in this area. Outside experiences, guest lectures and multimedia approaches are combined with regular classroom instruction to make a wide range of information available to students. The areas of concentration include the philosophy of child development, pregnancy and birth, and the development of the physical, mental, socio-emotional and language characteristics of the child.

CDFR 352. Nursery School Observation. (3) Observation in nursery school along with Course 351. Required only of students concentrating in Child Development and Family Relationships.

CDFR 353. Infant Clinic. (3) Observation and participation at Meharry Medical College and the Infant Laboratory.

CDFR 371. Methods and Techniques in Teaching Family Relationships. (1) Concerned with methods and techniques of teaching family-social relationships. Attention is given to new materials and equipment currently being used by the federal government in various programs concerned with family life.

CDFR 450. Senior Project Writing. (3) Instructs the student in techniques of professional writing, literature searching and abstracting scientific material. Completion of acceptable project required.

CDFR 452. Child Practicum. (3) A practicum in programs for young children in the Nashville community and the campus Early Learning Centers where students as interns apply theories covered in courses 351-352.

CDFR 460. Nursery School and Kindergarten Methods. (3) Includes methods, materials and modern trends on teaching in the nursery school and kindergarten. Organization, equipment, and housing are studied in relation to the development of children at these levels.

CDFR 461. Early Childhood Education Curriculum I. (3) Course includes a study of individual differences among children and theories of child development. Curriculum is focused on competency based education principles.

CDFR 462. Early Childhood Education Curriculum II. (3) Students will study a variety of early childhood education programs, and will be involved in constructing and evaluating curricula in a workshop situation.

CDFR 463. Family Relationships. (3) Course in focused on a study of modern family life, giving special emphasis to the needs and activities of individuals as they relate to the development of the family throughout the life cycle.

CDFR 464. Later Periods of Childhood. (3) A study of the development of the child from later pre-school to adolescence (5-12 years). Prerequisite: CDFR 351.

CDFR 466. Internship or Fieldwork in Child Development. (9) Opportunity is given to students to do practice work in nursery schools in the community and other agencies caring for children as well as the campus practice laboratory. Taken with approval of the coordinator of Child Development and Family Relationships.

CDFR 472. Observation and Student Teaching. (9) Experiences of supervised observation and teaching in the public schools are provided.

CLOTHING AND TEXTILES (C&T)

C&T 111. Textiles. (3) Consumer-oriented study of textiles, emphasing fibers, yarns, fabric construction, finishes and socio-economic background of the textile and apparel industry in relation to end use.

C&T 112. Cultural and Functional Concepts of Clothing and Textiles. (2) An interdisciplinary study of clothing including cultural patterns, behavioral interactions, changing needs, technological developments and acquisition of clothing.

C&T 203. History of Costume. (3) The history of costume from ancient times to the present and the influence of social and economic conditions upon costume. Open to all students. One lecture and one laboratory period.

C&T 211. Elementary Clothing Construction. (3) Principles of clothing construction are applied to cotton, linen and synthetic fabrics. Use and care of sewing machines, sewing skills, and wardrobe inventory included. Open to all students. One lecture and two laboratory periods.

C&T 300. Intermediate Clothing Construction. (3) Principles of clothing construction are applied to synthetic blended fabrics. Use of commercial patterns, principles of fitting and the use and care of sewing machines included. Prerequisite: Clothing 211.

C&T 302. Clothing of the Family. (3) A study of the physiological, psychological, and aesthetic aspects of clothing for the family. Based on the needs of the students interested in child development, family relationships, teaching or social work. The study of family clothing problems from the standpoint of income, occupation, and health as well as aesthetic and psychological factors affecting all family members. Open to all students. Two lectures and one laboratory period.

C&T 312. Applied Dress Design. (2) Features the application of decorative design in clothing construction, pattern adaptation, and originality. Prerequisite: Related Art 301. One lecture and one laboratory.

C&T 320. Needlecraft. (2) A study of the fundamental techniques of knitting, crocheting, embroidery and lacemaking. Open to all students. One lecture and one laboratory period.

C&T 321. Advanced Clothing. (3) Deals with advanced construction methods. Emphasis is placed on selecton, construction, and care of woolen garments. Prerequisite: Examination in construction skills. Juniors and seniors only.

C&T 322. Flat Pattern Adaptation. (2) A study of the principles and techniques of flat pattern design with application of these principles to commercial pattern alteration. The development of original designs emphasized.

C&T 401. Problems in Clothing and Textiles. (2) Special problems in the details of clothing construction, selection, and textiles selected and solved by the students. Also problems met in student teaching reviewed. Newer trends in clothing construction emphasized. Prerequisites: Clothing 211, and 321. Two lectures.

C&T 403. Clothing Economics. (3) A study of clothing as it relates to the consumer of clothing and textiles. Emphasis is placed on changing needs and desires, trends in clothing expenditures, legislation and care.

C&T 413. Dress Design and Draping. (2) A course in dress design with emphasis on originality and draping. Opportunity given to investigate sources of design and to practice various methods of designing. Prerequisites: Clothing 321. One lecture and two laboratory periods.

C&T 462. Honors Clothing and Textiles. (3) An intensive study of the socio-psychological, technology, and anthropological aspects of clothing and textiles.

FOODS (FDS)

FDS 111 Basic Foods. (3) A study of foods using an integrated approach. Involves a study of food principles and the creative applicaton of the principles in the solution of a problem or preparation of a product. Consideration of economics, sanitation, palatability; and nutritive quality of foods is emphasized. Course also includes exercises on food additives and new legislation as well as food selection, processing, and preservation.

FDS 223. Meal Management. (3) The planning preparation and service of nutritious, attractive meals at various cost levels for various occasions with emphasis on the conservation of time, energy and money.

FDS 311 Experimental Foods. (3) Designed to offer opportunity for independent laboratory work in the solving of practical problems in food preparation, experience in scoring, and standardizing experimental work. (e)

FDS 312 Experimental Foods. (3) Opportunity is provided for advanced indivudal study in experimental foods. Prerequisite: Foods 311. (e)

FDS 313 Institution Equipment. (3) Includes study of the kinds, selection, care, cost, and maintenance of individual pieces of equipment and their use, and labor saving devices in food service organizations.

FDS 321 Food Preservation. (3) A study of conventional and new methods of preservation. Some laboratory work is done in freezing and canning of foods. Two lectures and one laboratory period. (e)

FDS 352 Food Demonstration. (3) A study of the principles and techniques involved in foods and the use of related equipment as applied to the needs of extension, business, classroom and community teaching. One lecture and two laboratory periods. (e)

FDS 412 Quantity Cookery. (3) A study of methods of purchasing and storing foods in quantity, organization of labor, standards of work materials, and meal planning and preparation in large quantities. Some experience is gained in the University Cafeteria or other food facility. One lecture and two laboratory periods.

FDS 452 Organization and Management. (3) Includes a study of institutional food departments, professional ethics and qualifications for managers, employment procedures, personnel schedules and financial records. It also includes menu analyses, the development of standardized recipes, schedules and standardized recipes, schedules and standardized work procedures.

NUTRITION (NTR)

NTR 211 Elementary Nutrition. (3) A general course in nutrition. A study of basic nutrition facts, relation of nutrition to health, nutritional needs throughout the life cycle, and the relation of economic, sociological, psychological and cultural factors to the food intakes of individuals or groups.

NTR 312 Nutrition for Elementary and Secondary Teachers. (3) A general course in nutrition and its relation to health.

NTR 311 Applied Dietetics. (2) The fundamental principles of human nutrition as related to the construction of practical dietaries and the application of these principles to the feeding of individuals, families and groups.

NTR 411 Advanced Nutrition. (3) A study of chemical and physiological factors in digestion, absorption, and metabolism and dietary inter relatonships. Reports of recent research and their relation to problems of human nutrition are studied. Prerequisite: Nutrition 211.

NTR 433 Child Nutrition. (2) The study of nutrition as it relates to children from prenatal life through adolescence. Prerequisite: Nutrition 211.

NTR 450. Project Writing in Foods and Nutrition. (3) Instructs the student in techniques of professional writing, literature searching, and abstracting scientific material. Designed to assist each senior project. To be taken in the first semester of the senior year.

NTR 453 Diet Therapy. (3) Designed to study the modifications of the normal diet in the treatment of disease. Prerequisites: Nutrition 211, 311. Two lectures and one laboratory.

FAMILY ECONOMICS AND HOME MANAGEMENT (HMGT)

HMGT 320 Household Equipment. (3) Deals with the various types of household equipment, standard brands, their selection and care, and the study of problems concerned with the manufacture, marketing and servicing of the equipment of the home.

HMGT 321 Home Management Theory and Decision Making. (3) A study of the management process and how it can be applied to utilize most effectively the specific resources of the individual and family. Attention is given, not only to the traditional resources—money, time and energy—but also to the interests, abilities, and decision making skills of the individual.

HMGT 322 Economics for the Family. (3) Principles and problems associated with production, exchange and use of wealth and their direct relation to the welfare of families.

HMGT 401 Management for the Low-Income Family. (3) Deals with problems of families with very low income and those receiving welfare checks; how to get the most value from food stamps and free commodities. Field trips are arranged where actual conditions can be studied.

HMGT 422. Home Management Residence. (3) Designed to integrate the homemaking knowledge, abilities, and skills gained from previous courses and in other ways; to develop an awareness and some understanding of the components which make up the whole of management—such as goal defining, resource allocation and decision making. Prerequisite: Home Management 321. Cannot be blocked with student teaching.

HMGT 433. Consumer Education. (3) Includes the consumer activities in the marketplace and the financial world. Emphasis is given to the most important areas in which students will function as consumers.

RELATED ART (RA)

RA 201. Environmental Design. (2) Creative problems in design and color with emphasis on the element and principles of art as applied to the home and individuals; two and three dimensional forms in design; varied materials and techniques. Emphasis on awareness of design. Lab-Lecture.

RA 301. Costume Design. (2) An analysis of historic and contemporary trends and practical problems in costume design; the art of dress as a cultural expression; basic design elements and principles applied to dress; problems to develop originality and techniques in costume design and illustration; costume rendering and layout. General Prerequisites: Related Art 201 and Clothing 211. Prerequisites for Clothing majors: Related Art 201, Clothing 203.

RA 323. Spatial Living I. (2) Design in home planning; study of space relationship for family living; housing (including furnishings) in relation to design and environment.

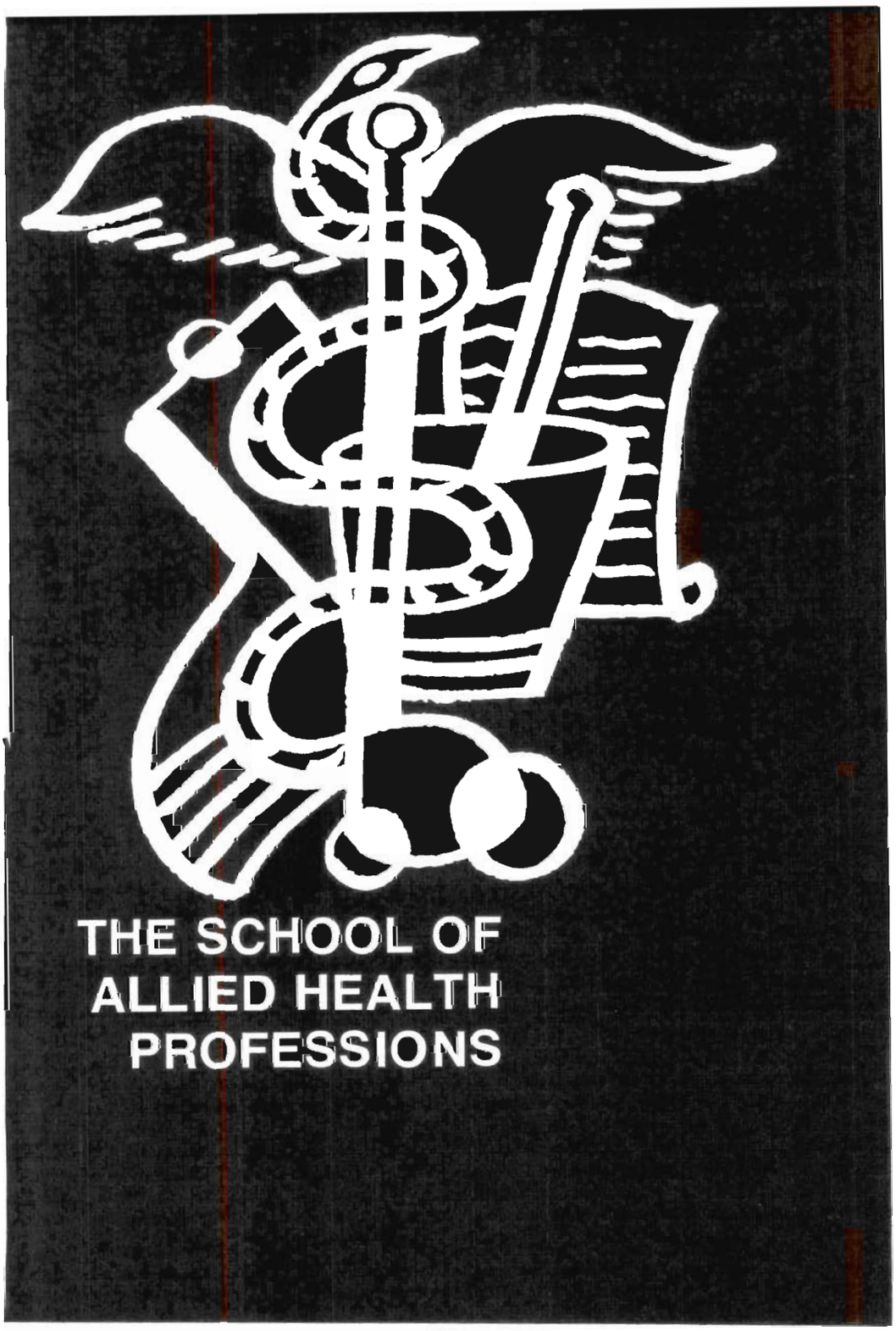
RA 350. Studio Design Laboratory. (2) Designed for students who experiment with art studio problems, related art problems, design inspiration and media—with guidance of instructor.

RA 400. Spatial Living II. (2) Historical and contemporary interiors . . . traditional and modern; classic Asian, European and current influences; contemporary.

RA 411 Textile Design. (2) Original design developed in resist and print methods using historic and contemporary techniques.

RA 412 Art Crafts. (2) Designing and executing art craft using inexpensive materials and tools, relationship of design to function, materials, tools and techniques; understanding educational, economic, social, recreational and therapeutic art craft work. Creative objectives of original design. Lab-Lecture.

RA 421. Interior Architecture. (3) Problems in designing for living; integration of structural concepts; design in relation to site, house and interior environment; selection and coordination of furniture, fabrics, materials, accessories in interior space laboratory. Prerequisite: Related Art 201 and 323. Lab-Lecture.


THE SCHOOL OF
ALLIED HEALTH
PROFESSIONS

SCHOOL OF ALLIED HEALTH PROFESSIONS
Andrew Bond, Ph.D., Dean

The School of Allied Health Professions is jointly supported and administered by Meharry Medical College and Tennessee State University. The purpose of the school is to offer educational programs designed to produce practitioners and prepare individuals who are interested in pursuing careers as educators in the health professions; to encourage, develop and support interest in research; and to provide health care, when appropriate, and continuing educational services to the community. This threefold purpose is consistant with the stated missions of both the Tennessee State University and Meharry Medical College.

The specific objectives of the School of Allied Health Professions are as follows:

1. To develop and implement educational programs designed to produce allied health practitioners and educators based upon employment demands and the availability of resources.
2. To recruit students interested in careers in the health care field in programs offered in the School and instill in these students the basic principles of morality and professional ethics. Also to provide these students with career counseling, academic advisement and tutorial assistance designed to assist them in their effort to achieve their career goals.
3. To maintain full accreditation by appropriate agencies for all programs offered by the School.
4. To recruit and maintain faculty capable of making significant contributions to the supporting institutions basic and applied research efforts.
5. To encourage and promote the rendering of service to the community through the sponsorship of seminars, workshops, consultation and the delivery of health care whenever appropriate.
6. To identify and develop the talents of students whose prior educational and cultrual disadvantage has prevented their being prepared fully to pursue an allied health career successfully without special assistance as well as to serve students who are well-prepared and talented.

The school presently offers programs in the following areas:

Dental Hygiene

Health Care Administration and Planning

Medical Records Administration

Medical Technology

Upon completion of either the associate or baccalaureate program in Dental Hygiene, or Health Care Administration and Planning, the degree will be conferred by Tennessee State University and the appropriate certificate will be awarded by Meharry Medical College. Students completing a major in Medical Technology will receive the baccalaureate degree from Tennessee State University and a certificate from the affiliate medical institution. Tennessee State University will confer the baccalaureate degree upon graduates from the program in Medical Records Administration.

DIVISION OF DENTAL HYGIENE

MRS. CHANDLER, (DIRECTOR)

The Dental Hygiene Program prepares graduates to perform as an integral part of the dental health team. Graduates are prepared to provide preventive and therapeutic services under the supervision of a dentist.

The dental hygienist is a licensed professional dental health educator, with specialized clinical and educational skills, who works under the supervision of a licensed dentist. The primary function of the dental hygienist is to work with the dental health team—dentists, dental hygienists, dental assistants and dental laboratory technicians—in assisting individuals and groups of individuals in obtaining and maintaining optimal dental health through the prevention and control of dental diseases and disorders.

Graduates of the Associate of Science degree program are educated to function primarily within the dental office, hospital, and clinic. Specifically, graduate with the Associate of Science degree will be able to polish restorations and scale, plane and polish teeth; apply topical agents; provide guidance to patients on diet and plaque control; manage patients with early signs of periodontal disease, and function as a supervisor of other dental auxiliaries in dental offices and clinics.

The Bachelor of Science degree program in Dental Hygiene Education was implemented during the Fall semester, 1977.

The dental hygienist graduating from the Bachelor of Science degree program will be qualified to perform the same duties as the Associate of Science degree dental hygienist. In addition, this graduate will be able to supervise other dental hygienists; perform extended duties in periodontics; teach in public schools; teach in dental hygiene programs; and function as part of the community health care delivery system.

The Baccalaureate degree may serve as a foundation for further study or as a supplement to previous study.

The Dental Hygiene Program is accredited by the Commission on Accreditation of Dental and Dental Auxiliary Education Program. Graduates are eligible to take the National Board Dental Hygiene Examination and board examinations in all states and regions in which the graduate may wish to practice.

A completely recently renovated dental hygiene clinic, laboratory, and classrooms are maintained in Clement Hall. Students are also assigned to various clinics within the School of Dentistry at Meharry Medical College as well as to health centers and other off-campus facilities.

Dental Hygiene students are entitled to participate in all extracurricular activities of both Meharry Medical College and Tennessee State University. Students have complete assess to facilities on both campuses, e.g., libraries, inter-library loans from Vanderbilt University School of Medicine Library, and other libraries within the Metropolitan Nashville Area made possible through the Public Service Department of the Meharry and the Tennessee State Libraries.

APPLICATIONS

Application forms for admission may be obtained from the Office of Admissions and Records at Tennessee State University. All communications regarding admissions should be addressed to the Office of Admissions and Records, Tennessee State University.

All transcripts and other materials must be on file in the Office of Admissions and Records before applications are processed. Students wishing to apply for freshman class, which begins in the Fall semester, should have all application materials on file by May 15.

Students are accepted for advanced standing and transfer credits are granted. Requests for transfer credits and/or advanced standing are evaluated by the Department.

ADMISSION REQUIREMENTS

Associate of Science Degree

Applicants for the Associate Degree must meet the general admission requirements for the University. Additional requirements to be considered are:

1. A high school average of 2.5 and above on a 4.0 scale
2. One year of high school biology
3. One semester of high school chemistry
4. A personal interview
5. Certification of good health status
6. Two letters of recommendation from science teachers assessing

the applicant's potential for success in the dental hygiene curriculum and one character recommendation
7. ACT scores
8. One year of high school algebra
9. A brief autobiographical sketch in the applicant's handwriting.

Bachelor of Science Degree

Applicants who wish to enter the Bachelor Degree Program at the junior level must submit the following data and meet the following criteria:

1. Two letters of recommendation from dental hygiene faculty persons who taught the applicant
2. Complete college transcript(s)
3. A passport type photograph taken within the last year
4. A satisfactory health status report processed within the last three months of date of application
5. Dental Hygiene National Board Certification
6. A state board license before the beginning of the senior year
7. A "B" average in clinical dental hygiene courses and a minimum overall grade point average of 2.5 on a 4.0 scale. (Applicants with grade point averages higher than the minimum may be given priority in acceptance.)
8. A personal interview with members of the committee on admissions (Interviews may be arranged for applicants who live beyond 300 miles of the University.)

If the applicant has had a long period of absence from an academic program, references from employers, counselors, or other community leaders who know the applicant well may substitute for references from science teachers.

Acceptance to the University does not insure acceptance into the dental hygiene program. Following notification of acceptance to the University by the Office of Admissions and Records, the prospective dental hygiene applicant's admission materials will be evaluated by the Committee on Admissions of the Division of Dental Hygiene. Dental hygiene applicants will be informed of their acceptance or rejection by the Chairman of the Committee on Admissions. Each candidate who presents minimum requirements is evaluated competitively and is accepted, placed on the alternate list, or rejected on the basis of relative qualifications.

Should an applicant fail to meet minimum requirements for entrance into the dental hygiene program but shows potential as a dental hygienist, the Dental Hygiene Admissions Committee will advise the applicant of mechanisms for meeting the requirements and the procedure for re-applying.

A non-refundable deposit of $25.00, which will apply toward the purchase of laboratory coats and caps, is required to hold a class space. Falsification of any portion of the admission data disqualifies the applicant for further consideration by the Committee on Admissions. This policy supersedes the requirements for admission already in force.

Dental Hygiene students upon registration pay a refundable library deposit of twenty dollars ($20.00) and a non-refundable library usage fee of ten dollars ($10.00) at Meharry Medical College. An orientation fee of ten dollars ($10.00) and a thirty dollar ($30.00) yearbook fee are also required.

Tuition and other fees will be paid to Tennessee State University in addition to the above fees. Students wishing to obtain health care and to participate in Meharry Medical College activities will pay the appropriate fees. There are instruments to be purchased for use in Dental Hygiene, the cost of which varies from year to year. Upon applying, the applicant is sent an approximate cost sheet for supplies and instruments relating to Dental Hygiene courses.

Admission to Advanced Standing

Students must earn, in residence, a minimum of 24 of the last 30 hours offered for the Associate Degree in Dental Hygiene. The following requirements are necessary:

1. Matriculation in an accredited Dental Hygiene Program
2. Official transcripts from each school attended showing the fulfillment of entrance requirements for admission to this program
3. Satisfactory scholastic and disciplinary records from the dental hygiene program from which the applicant is withdrawing. No students are accepted whose failures have resulted in dismissal or academic probation in another dental hygiene program
4. A statement of honorable dismissal from the Dean or Director of Dental Hygiene from the program from which the applicant is withdrawing
5. If the interval since attendance at dental hygiene has exceeded two years, the applicant will be required to take examinations as the Committee on Admissions or the Committee on Curriculum recommends
6. If any deficiencies exist, disposition may require
   a. Validation of credits by certain department chairmen
   b. Examination of credits by certain department chairmen
   c. Completion of certain courses not common to all dental hygiene curricula.
7. Admission to advanced standing may necessitate auditing, or taking for credit, courses which the Committee on Curriculum may deem necessary to insure adequate preparation for continued dental hygiene study.

Re-Admission

Application for re-admission must be made to the Office of Admissions

and Records and must be approved by the dental Hygiene Admissions Committee. The applicant must meet all requirements in force at the time of such applicaton. If the interruption has exceeded two years, the applicant will be required to take examinations in courses for which credit is desired unless otherwise advised by the Curriculum Committee. Students who have been dismissed from the Dental Hygiene program are eligible for reconsideration only under extenuating circumstances.

Admission as an Auditing Student

To register as an auditor, a student must be admitted to the University and pay all appropriate fees. Requests to audit Dental Hygiene courses must be approved by the Office of the Director.

A student of the Division of Dental Hygiene may be directed by the Faculty Executive Committee of Meharry Medical College to audit one or more courses.

The course of study for the baccalaureate program conforms to that of the associate degree program for the first two years, with few exceptions. Students who enter the baccalaureate curriculum at the post certificate level will be expected to follow the program as outlined below:

FRESHMAN YEAR

Fall Semester

Course	Credit Hours
ENG 101	3
ZOO 201 (ANAT/PHYS)	4
DH 101	5
DH 110	4
NTR 112	2
Total	18

Spring Semester

Course	Credit Hours
ENG 102	3
ZOO 202 (ANAT/PHYS)	4
DH 102	5
DH 103	2
CHM 100	4
Total	18

First Summer Session

Course	Credit Hours
PSY 201	3
MCRB 240	4
Total	7

Second Summer Session

Course	Credit Hours
PHYS ED	2
ART, MUS, or DRAMA	2
PHIL (300 level)	3
Total	7

SOPHOMORE YEAR

Fall Semester

Course	Credit Hours
DH 201	6
DH 212	2
DH 205	3
DH 210	3
DH 204	3
Total	17

Spring Semester

Course	Credit Hours
DH 202	6
DH 215	2
SPEECH 322	3
SOC 211	3
ED 201*	3
DH 211	2
Total	16/19

*For B.S. Matriculants

JUNIOR YEAR

Fall Semester

Course	Credit Hours
ED 387	3
DH 301	3
PSY 242	3
HIST 201	3
DH 304	3
PSY 311	3
Total	18

Spring Semester

Course	Credit Hours
MATH 111	4
DH 302	3
DH 313	3
HIST 202	3
DH 305	2
DH 314	3
Total	18

SENIOR YEAR

Fall Semester

Course	Credit Hours
DH 401	4
DH 411	3
Elective (300-400 level)	3
DH 405	2
ENG 351 or 361	3
ED 463	2
PE	1
Total	18

Spring Semester

Course	Credit Hours
DH 402	4
DH 450 or HCA 490	3
Elective (300-400 level)	3
ENG 352 or 362	3
ED 490	3
PE	1
Total	17

Note: 1) Curriculum is subject to change with notice.
2) College level courses may be substituted with permission of the Dental Hygiene program director.
3) Associate degree students without high school credits in American History are required to obtain credits prior to graduation preferably before entering Dental Hygiene or before the second year study.

ACADEMIC REGULATIONS

The following regulations are in addition to those of the University and apply specifically to dental hygiene students:

1. Examinatons, other than mid-term and finals, will be held at the discretion of the instructor.
2. The evaluation of a student's performance is expressed according to Tennessee State University's system with the exception that the "D" grade is not accepted for any dental hygiene nor prerequisite courses.
3. Students are encouraged to remove an "I" (Incomplete) in dental hygiene and prerequisite courses by the end of the semester following the one in which the "I" was received. All "I" grades that are not removed within one calendar year, not including summer sessions, will be changed to "N.C." (no credit).
4. Recommendations for advancements are the charge of the Dental Hygiene Evaluation Committee which meets following mid-term and the final examination periods. All teachers who take part in the student's instructional program serve as members of this committee and the program director is chairperson. This committee serves

as a forum committee wherein instructors discuss the estimate of each student's academic standing in all subjects. Recommendations are made to the Meharry Medical College Academic Council concerning promotions and the disposition to be made of students who encounter difficulty in their studies. Recognition is also given for superior work.

5. Citations for outstanding performance originate with the Evaluation Committee. Generally, a qualifying student is one who has uniformly done outstanding work during a particular semester.
6. Appeal of the decision of the Academic Council is a student's privilege. A letter of appeal is addressed to the Chairman of the Academic Council at Meharry Medical College. Although faculty members may be sought for advice, an appeal to a faculty member to intervene makes the action of the Council irrevocable.
7. In order to facilitate a student's acquisition of discipline and motivation that will result in maximum professional development, students are expected to attend a minimum of 80% of their didactic classes and 100% of their clinical experiences.

REQUIREMENTS FOR GRADUATION

Students must meet all requirements for graduation as set forth by Tennessee State University. All fees to Meharry Medical College must be paid. Students must have completed all academic and clinical requirements. Further, all candidates for graduation must be recommended by the faculty to the Academic Council and to the Board of Trustees.

When a student files for graduation, a fee for the Dental Hygiene certificate must be paid to Meharry Medical College and the diploma fee must be paid to Tennessee State University.

PRIZES AND AWARDS

Regular students are given preference for prizes and awards. Consideration shall be on an individual basis and exceptions may be made in the cases of irregular and special students who have done outstanding work.

THE DENTAL HYGIENE DIRECTOR'S AWARD. Awarded to the graduating student who has exhibited the greatest proficiency and interest in dental health education during his/her senior year.

THE HU-FRIEDY AWARD. Awarded to the outstanding dental hygiene student in theoretical and clinical dental hygiene.

THE OLYMPIC AWARD. Awarded to the graduating student having the highest general average for the entire course in dental hygiene.

THE SIGMA PHI ALPHA DENTAL HYGIENE HONOR SOCIETY AWARD. Awarded to the electee of Omicron Chapter with the highest scholastic average.

THE TENNESSEE DENTAL HYGIENISTS' ASSOCIATION AWARD. Awarded to the graduating dental hygiene student who in the opinion of his/her peers best epitomizes the professional dental hygienist.

THE NASHVILLE DENTAL SUPPLY COMPANY AWARD. Awarded to the graduating student who has rendered the highest quality of direct patient services above and beyond stated minimum criteria.

THE DENTAL HYGIENE FACULTY AWARD. Awarded to the graduating student who had made the most overall progress during the entire course in dental hygiene.

THE PATTERSON DENTAL SUPPLY COMPANY AWARD. Awarded to the graduating student, who in the opinion of the faculty, best epitomizes the professional dental hygienist.

THE CLINICAL DENTAL HYGIENE AWARD. Awarded to the graduating student whom the faculty assesses as having demonstrated the most outstanding clinical and patient management skills.

Students seeking the Associate of Science degree must complete the curriculum outlined below for the Freshman Year, Summer Session and the Sophomore Year.

Students seeking the Bachelor of Science degree must complete the full four year curriculum.

Associate of Science and Bachelor of Science
Degree Curricula in Dental Hygiene

COURSE OFFERINGS

Courses which do not bear a "DH" prefix are described in the catalogue of Tennessee State University. DH 101, 102, 201 and 202 are team taught courses with content representing several disciplines. Students are required to perform satisfactorily in each specified content area within the combined courses before progressing to subsequent courses, e.g., unit in Dental Radiography, in DH 102, must be completed satisfactorily in order for the student to progress to DH 201.

DH 101. Dental Hygiene. (3) An introduction to basic concepts, methods, materials and techniques of dental hygiene care, including interpersonal and intraprofessional relationships, instrumentation, obtaining and recording medical and dental histories, learning and teaching preventive concepts, cariology and typical fluoride techniques, tissue response to injury, prevention of disease transmission, utilization of basic diagnostic aids, i.e., blood pressure, clotting time, heart beat, pulse, Dental Auxiliary Utilization and Ethics. 3 class hours.

DH 101C. Dental Hygiene Clinic. (2) 8 laboratory hours.

DH 102. Dental Hygiene. (3) A topical approach to general dentistry and specialty practice with particular emphasis on the role of auxiliaries, dental roentgenology and fundamentals of radiation hygiene, dental materials and their manipulation, Dental Auxiliary Utilization (DAU) continued application of theoretical knowledge and clinical procedures to patient care. Pre-requisites: DH 101, lecture and laboratory, DH 110, and Zoology 201, lecture and laboratory. Zoology 202 is taken concurrently. 6 class and laboratory hours.

DH 102C. Dental Hygiene Clinic. (2) 8 clinic hours.

DH 103. Dental Hygiene. (2) An introduction to periodontics with emphasis on recognition of gingival and periodontal problems, their probable cause, treatment and prevention; basic first aid procedures, advanced techniques of patient education and continued application of theoretical principles to clinical dental hygiene. Pre-requisites: DH 101 lecture and laboratory and Zoology 201 lecture and laboratory. DH 102 lecture and clinic and Zoology 202 lecture and laboratory are to be taken concurrently. 2 class hours.

DH 110, Oral Anatomy and Physiology. (4) Gross and microscopic anatomy of the teeth, tissues and organs of the oral cavity and related structures; musculature, innervation and blood supply and bone structure; growth and development; function of salivary glands, a study of normal function. DH 101 lecture and laboratory and Zoology 201 to be taken concurrently. 3 class hours; 3 laboratory hours.

NTR 112. Nutrition. (2) The study of nutrients needed for health functioning of human beings and the biochemical functions of these nutrients in the body; nutrient content of foods and its application to meal planning; special nutritional needs of infants, adolescents, pregnant women, nursing mothers and the elderly; world food problems. (Applied nutrition is given major consideration as a module in DH 201, e.g., dietary counseling for dental caries and periodontal diseases), 2 class hours.

DH 201. Dental Hygiene. (2) Hospital dentistry, dental office emergencies, pain control, applied nutrition for control and prevention of caries and periodontal diseases are considered. Pre-requisites: DH 102 lecture and clinic; DH 205 lecture and laboratory are to be taken concurrently. 2 class hours.

DH 201C. Dental Hygiene Clinic. (4) Continued applicaton of theoretical principles to clinical dental hygiene. Prerequisite: DH 102. DH 201 lecture is taken concurrently. 17 clinic hours.

DH 202. Dental Hygiene. (2) Considers ethics and jurisprudence. Prerequisites: DH 201 and DH 201 C. 2 class hours.

DH 202C. Dental Hygiene Clinic. (4) Continued application of theoretical principles to clinical dental hygiene. Pre-requisites DH 201 lecture and clinic; DH 202 lecture is taken concurrently. 17 clinic hours.

DH 204. Myofunctional Therapy. (3) Designed to teach the sophomore A.S. dental hygiene students the basic knowledge and skills in myofunctional therapy in order to be able to recognize (or "diagnose"), examine, plan and describe a therapy regimen for representative patients with inappropriate oral pressure habits. The course emphasizes basic principles and concepts of anatomy and physiology of the head and neck, growth and development, basic aspects of speech, communication and behavior change strategies. Prerequisites: DH 102 lecture and clinic, Zoology 202 and DH 201 lecture and clinic are taken concurrently, 3 class hours.

DH 205. Expanded Periodontics for the Dental Hygienists. (1) Designed to offer aspects of periodontics which are not generally considered as traditional dental hygiene functions. Advanced instructions are offered to further enable students to recognize and label periodontal disease and to understand etiological factors. Students are taught to participate in the planning of treatment for early or minor forms of periodontal disease, to apply and remove dressings and to administer local anesthetics in a laboratory setting. Prerequisite: DH 103. 1 class hour.

DH 205 C. Expanded Periodontics Laboratory/Clinic. (2) Practical application of DH 205. 4 laboratory hours.

DH 210. General and Oral Pathology. (3) A study of disease and disease process; the oral manifestations of systematic disease; oral pathology with particular attention to oral cancer; cancer detection methods. Pre-requisites: DH 102, DH 103 and Zoology 202. DH 201, DH212 and, DH 205 to be taken concurrently. 4 class hours.

DH 211. Community Dentistry. (2) A survey of private and community dental health services including neighborhood health centers, health maintenance organizations, nursing homes, hospitals, clinics; the interaction of federal, state and local agencies; dental needs and demands, manpower; dental epidemiology; socio-economic factors relating to dental care; dental health education in the schools; sepcial programs; dental insurance. 2 class hours.

DH 212. Pharmacology. (2) Principles of therapeutics; the application of phrarmacologic principles to dental and dental hygiene care; management of dental office emergencies with particular attention to drugs and medicaments used for the treatment of allergic reactions, anaphylactic shock, syncope, cardiac arrest, etc. Pre-requisites: Zoology 202 and DH 102. DH 210 and DH 201 to be taken concurrently. 2 class hours.

DH 215. Dental Health education seminar. (2) An analysis of dental health education methods and materials; evaluation of pamphlets and other printed materials; students will design and produce dental health education materials that can be used in dental offices and other settings; techniques of behavioral modificaton are offered as a module. Pre-requisite: DH 201 and DH 211 to be taken concurrently. 2 class hours.

DH 301. Dental Hygiene. (2) Application of techniques of communication and behavioral change strategies; application of clinical techniques for the management of dental patients; aids for diagnostic evaluation; treatment planning and case presentation for dental patients. 2 class hours; 3 clinic hours. Pre-requisities: Associate degree in Dental Hygiene and qualifying examinatons. 2 class hours.

DH 301C. Dental Hygiene Clinic. (1) 3 clinic hours.

DH 302. Dental Hygiene. (1) Application of clinical techniques for the management of dental patients, i.e., soft tissue currettage and root planning; continued application of dental hygiene procedures to the care of patients including the psychological management and the perception of pain. 1 class hour. Pre-requisite: DH 301.

DH 302C. Dental Hygiene Clinic (2) 6 clinic hours.

DH 304. Inappropriate Oral Pressure Habits. (3) The purposes of the course are to teach B.S. degree students to identify (or "diagnose"), examine, develop a treatment plan, record, carry out and evaluate therapy programs for patients with oro-facial muscle imbalances. This indepth course emphasizes basic concepts and principles of anatomy and physiology of the head and neck, growth and development, related aspects of speech, communication and behavior change strategies. 3 class hours.

DH 305-DH 405. Clinical Practicum and Seminar in Myofunctional Therapy. (2) The B.S. student, under supervision of the Myofunctional Team, provides direct patient care in the screening, examination, data collection and reporting, diagnosing, and rendering of therapeutic services to patients who exhibit signs and symptoms of inappropriate oral pressure habits. This is an elective course for A.S. students. Pre-requisites: DH 204 or DH 304. 3 clinic/seminar hours.

DH 313. Advanced Oral Biology and Pathology. (3) An indepth approach to the prevention of oral disease including, in some instances, correlation with selected studies for advanced students; effects of chemotherapeutic agents or oral flora; allergic reactions; diagnosis and treatment of oral disease. 3 class hours. Admission to the B.S. degree program is required.

DH 314. Introduction to Research. (3) An indepth study of current dental literature; Introduction to epidemiologic techniques; case studies with emphasis on epidemiology of

dental disease; discussion of classic epidemiologic studies. Pre-requisite: DH 211. 3 class hours.

DH 401. Dental Hygiene Externship. (1) Application of dental hygiene techniques to various settings, e.g., the hospital, the neighborhood health center, and clinics. The students will select the areas in which efforts will be concentrated. Experiences will be individualized and designed to meet student proposed career goals. 1 class hour.

DH 401C. Dental Hygiene Clinic. (3) Clinical application of DH 401 theory. 6 clinic hours.

DH 402. Dental Hygiene. (1) Continuation of individualized experiences as described in Dental Hygiene 401. Pre-requisite: DH 401 1 class hour.

DH 402C. Dental Hygiene. (3) Clinical application of DH 402 theory. 6 clinic hours.

DH 411. Curriculum Concepts in Dental Hygiene and Allied Health Education. (3) Community College Philosophy and Organization and theories of learning are explored. 3 class hours.

DH 450. Senior Project. (3) Independent self-study senior project guided by committee. 3 class hours.

DIVISION OF HEALTH CARE ADMINISTRATION AND PLANNING

DR. WATSON (Director)

GENERAL INFORMATION

In affiliation with Meharry Medical College, Tennessee State University offers an undergraduate course of study in Health Care Administration and Planning designed to prepare individuals for leadership roles in the Health Care System. The curricular programs provided by the Division are the Bachelor of Science Degree Program and the Associate of Science Degree Program.

ADMISSION REQUIREMENTS

Students desiring to pursue either the Bachelor of Science or the Associate of Science Degree must be accepted at Tennessee State University and also by the Health Care Administration and Planning Admission Committee of Meharry Medical College. The committee will consider applications of candidates who present the following qualifications:

1. Acceptance into Tennessee State University.
2. A grade point average of at least 2.0 on a 4 point scale. Consideration will be given to relevant life or work experience when considering applicants who fall below this requirement.
3. Two letters of recommendation from persons who have known the applicant for at least two years. Time lengths will be waived in case of employer's letter of recommendation.
4. Interview on campus or by out-of-town agency named by the Admissions Committee prior to the acceptance by the Admissions Committee.

5. Evidence of having paid an application fee of $5.00 to Tennessee State University.

CURRICULUM AND DEGREES

The Bachelor of Science degree at Tennessee State University provides instruction in health management, decision making and the health planning area. Emphasis is placed on those management and decision guides which lead to efficiency in supervisory position. The Bachelor of Science degree is awarded after a student satisfactorily completes a minimum of 134 semester hours including one summer field placement. Tennessee State University will award the Associate of Science degree after satisfactory completion of 73 semester hours of requisite course work including one summer field placement. The curriculum is designed primarily to prepare the student to work in a health care setting, having acquired fundamental managerial concepts and skills. For the student who seeks to minor in Health Administration, twenty-six semester hours must be completed. The required courses are: HCA 201, 202, 210; ECON 211-212; Acc 211-121, and MG 331. Courses in the Division lead to certification by Meharry Medical College and are governed by the academic policies of the institution. Majors and minors in the division of Health Care Administration and Planning must meet the general academic requirements of the University and the certifying requirements of Meharry Medical College.

HEALTH CARE ADMINISTRATION AND PLANNING CURRICULA REVISIONS

MAJOR RELATED COURSES

Course No.	Course Title	Credit Hours
HCA 201	Introduction to Hlth. Care Org.	3
HCA 202	Introduction to Hlth. Care Org.	3
HCA 210	Approaches to Planning	3
HCA 310	Health Economics	3
HCA 320	Seminar: Health Law	3
HCA 330	Sociology of Health	3
HCA 390	Technical Communications	3
HCA 400	Field Placement	6
HCA 410	Seminar: Critical Health Issues	3
HCA 420	Health Care Mgmt. I	3
HCA 460	Health Care Mgmt. II	3
HCA 490	Health Adm. Research	3
	TOTAL HRS.	39

Required Supportive Courses—TSU

AC.	211	Elementary Accounting	4
AC.	212	Elementary Accounting	4
Econ.	211	Prin. of Economics	3
Econ.	212	Prin. of Economics	3
MG.	300	Prin. of Management	3
MS.	311	Bus. Math and Statistics	3
MG.	331	Bus. Org. & Management	3

Electives

***HCA&P Electives**

HCA 350	Cultural-Social Aspects of Hlth. Care	3
HCA 430	Epidemiology	3
HCA 440	Environmental & Sanitary Health	3
HCA 450	Long Term Care Administration	3

***Business Administration Electives—TSU**

B.A. 301	Data Processing	3
B.A. 302	Computer Programming (COBOL)	3
B.A. 312	Introduction to Mgmt. Science	3
B.A. 423	Personnel Administration	3

*Choose two (2).

COURSES IN HEALTH CARE ADMINISTRATION AND PLANNING

HEALTH CARE ADMINISTRATION (HCA)

HCA 201. Introduction to Health Care Organization. (3) Provides an overview of the American Health Care System, with emphasis on acquaintance with the many varied aspects of the entire field, including terminology, facilities, placements, and people. The subject areas include a history of the development of American Health Care System, a descriptive analysis of the various levels of health care delivery and the patient care system, exposure to financing of health, and an introduction to governmental involvement in the health care system.

HCA 202. Introduction to Health care Organization. (3) Provides an overview of the more significant national and local planning activities designed to alleviate some of this country's and this area's pressing health problems. This course will focus on the origin, planning and experience of health-related legislation and programs. Pre-requisite: HCA 201.

HCA 210. Approaches to Planning in Health Care. (3) The principal theories and methodologies of the planning discipline will be studied via lectures, readings, case studies, and guest lecturers. The philosophical foundations of various methodologies and those of the planning process will be examined. Specific interpretation and application of comprehensive health planning legislation will be considered. Emphasis will also be given to the concepts of regionalization. This course is recommended for all those considering employment or post graduate study in planning. Pre-requisites: HCA 201, 202.

HCA 310. Health Economics. (3) The economics of the health care industry will be reviewed, with attention to the supply and demand for health care services. Critical issues to be examined include the economic mechanisms of the health care industry, methods of paying, cost-effectiveness and benefits cost analysis, natinal health insurance plans, and governmental intrusions. The economics of the present health care system will also be analyzed in it's relation to the poor and minorities. Pre-requisites: HCA 201, HCA 202, Econ. 211, Econ. 212.

HCA 320 Seminar: Health and Facilities Law. (3) Introduction to the specifics of health related legislation and programs, and their implications for providers and consumers of health care. The legal principles and issues for medical caseworkers, along with liability of health care facilities and staff for injuries to patients, and abuses of patient rights by the health care system will be examined. Topic areas also include malpractice suits and legislation; collection of bills, labor law; informed consent of patients to medical and surgical procedures. Pre-requisites: HCA 201, HCA 202, Pol. Sci. 101.

HCA 330 Sociology of Health. (3) The objectives of the couse will be to examine the social and psychological implications of illness from inception to termination. Materials will be drawn from the relevant literature of the behavioral sciences that relate to health. Pre-requisites: HCA 201, HCA 202, Soc. 211, Soc. 121.

HCA 350. Cultural-Social Aspects of Health Care. (3) Discussion will center on the effects of the social and cultural milieu on the level of health of the community; the nature, accessibility and availability of health care services. Pre-requisites: HCA 201, HCA 202. (3)

HCA 390. Communication and Technical Writing. The special requirements and techniques for the professional report will be examined along with an analysis of the general communication skills required of the professional health administrator. Students will receive training in practical communication and grant interpretation. Also, attention will be given to the development of writing skills and the special communication needs of individual students.

HCA 400. Field Placement. (6) The internship is designed to give the student direct experience in various health care settings. The experimental component allows the student an opportunity to apply his newly acquired normative and cognitive skills in an actual working situation. The areas from which students may choose are: hospital, federal government, long-term care facility, intermediate care facility, group practice, medical program, volunteer agency, mental health facility, or community agency. During the ten-week placement, the summer between the junior and senior year, students will be required to submit midterm nation-wide basis. Pre-requisite: Senior Standing.

HCA 410. Seminar: Critical Health Issues. (3) The objective of the seminar will be to examine the many current issues which face the health care industry. Emphasis will be placed on a full evaluation of the gamut of issues, with particular attention being given to the issues facing minority health care delivery. Issues that will be investigated and discussed include: health care for the poor; rising cost of health care; medical specialization; legislative impact on health care for minorities; and voluntary and governmental health insurance.

HCA 420. Health Care Management I. (3) The applicaton of management techniques to the administration of health care facilities will be examined. The various administrative management elements of health care—systems approach to decision making; the establishment of management objectives and techniques; and the management of complex and normative organizations—will be discussed. Also, the different levels of administrative management will be discussed. Pre-requisites: HCA 201, 202, 210; Econ 101, 102, 121, 122; Acctyg. 211, 212; Mgmt. 201, 206.

HCA 430. Epidemiology. (3) The objective of this course is to acquaint students with epidemiology as a scientific discipline, and to facilitate student's understanding of the role of epidemiology in health service planning and administration. Emphasis will be placed on methods employed in current epidemiologic studies of chronic diseases, public health, vital statistics, environmental sanitation, and communicable disease control on a local, national, and global basis. Pre-requisites: HCA 201, 202, 310.

HCA 440. Environmental and Sanitary Health. (3) This course will discuss the responsibilities of the administrator for providing a hygienic, safe, institutional environment, as well as the responsibility of the institution to contribute to the environmental health of the community. The course will also discuss critical environmental health issues as they relate to the overall health of the community. Pre-requisites: HCA 201, 202.

HCA 450. Long Term Care Administration. (3) The administrative issue of care for long-term patients will be addressed with specific discussion on the aged, and primary and extended care of the aged. The peculiar social, cultural, and economic environment will be discussed as each relates to accessibility and availability of health services, and the aspects of administration in long-term care facilities. Pre-requisites: HCA 201, 202.

HCA 460. Health Care Management II. As an extension of Health Care Management I, advanced quantitative methods and statistical techniques will be studied. In addition, this course will study managerial financing of health care facilities in relation to acquisition, planning and control of funds from internal/external souces for short-term intermediate, and long-term objectives. Issues to be examined include financial analysis, profit planning, cost-benefit analysis, and reorganization. Pre-requisites: HCA 201, 202, 210, 420; Econ. 101, 102, Econ. 121, 122, Acctyg. 211, 212, Mgmt. 201, 206.

HCA 490. Health Care Research. (3) An introduction to the research design will be provided, with emphasis on application of statistical and research techniques to problems of concern to the health care system. Students will be required to carry through to completion a manageable research problem. Pre-requisites: HCA 201, 202; BA 311; Mgmt. 202.

Two-Year Curriculum-Associate of Science Degree*

FRESHMAN YEAR

FIRST SEMESTER

Course No.	Descriptive Title	Credit Hours
Eng. 101	Freshman English	3
Hist. 201	American History	3
Math. 111	Intro. to College Math	4
P.E. or AFROTC	Physical Education	1
Soc. 211	Introduction to Sociology	3
HCA 201	Introduction to Hlth. Care Org.	3
	TOTAL HRS.	17

SECOND SEMESTER

Eng. 102	Freshman English	3
Hist. 202	American History	3
Math. 112	Intro. to College Math	3
P.E. or AFROTC	Physical Education	1
Speech 230	Business & Professional Speech	3
HCA 202	Introduction to Hlth. Care Org.	3
	TOTAL HOURS	16

SOPHOMORE YEAR

FIRST SEMESTER

HCA 390	Tech. Writing & Communication	3
HCA 210	Approaches to Planning	3
Acctg. 211	Elementary Accounting	4
Econ. 211	Prin. of Economics	3
MG. 331	Business Org. & Management	3
P.E. or AFROTC	Physical Education	1
	TOTAL HRS.	17

SECOND SEMESTER

MG. 300	Principles of Management	3
HCA 320 or 410	Seminar	3
HCA 420	Health Care Mgmt. I	3
Acctg. 212	Elementary Accounting	4
Econ. 212	Principles of Economics	3
P.E. or AFROTC	Physical Education	1
	TOTAL HOURS	17

SUMMER

HCA 400	Field Placement/Practicum	6
	GRAND TOTAL HRS.	73

*The Associate of Science Degree candidate can expect August graduation.

Four Year Curriculum
Bachelor of Science Degree

FRESHMAN YEAR

First Semester

Course No.	Descriptive Title	Credit Hours
Math. 111	Intro. to College Math	4
Eng. 101	Freshman English	3
Hist. 201	American History	3
Sci. 121	Intro. to Bio-Physical Science	4
P.E. 11	Team Games & Conditioning	1
	TOTAL HRS.	15

SECOND SEMESTER

Math 112	Intro. to College Math	3
Eng. 102	Freshman English	3
Hist. 202	American History	3
Sci. 122	Intro. to Bio-Physical Science	4
P.E. 12	Elementary Swimming	1
Speech 230	Bus. & Prof. Speech	3
	TOTAL HRS.	17

SOPHOMORE YEAR

FIRST SEMESTER

Eng. 211	World Literature	3
GPA. 211	American Natl. Gov't.	3
Soc. 211	Intro. to Sociology	3
HCA 201	Intro. to Hlth. Care Org.	3
P.E.	Phy. Ed. elective	1
Econ. 211	Prin. of Economics	3
	TOTAL HRS.	16

SECOND SEMESTER

Eng. 212	World Literature	3
HCA 210	Approaches to Planning	3
MG. 300	Prin. of Management	3
MGA 202	Intro. to Hlth Care Org.	3
P.E.	Physical Education	1
Econ. 212	Prin. of Economics	3
	TOTAL HRS.	16

JUNIOR YEAR

FIRST SEMESTER

HCA 310	Health Economics	3
Acctg. 211	Elementary Accounting	4
HCA 320	Seminar: Health Law	3
Soc. 320	Anthropology	3
Phil. 323	Intro. to Philosophy	2
HCA 330	Sociology of Health	3
	TOTAL HRS.	18

SECOND SEMESTER

HCA 390	Technical Communication and Writing	3
Acctg. 211	Elementary Accounting	4
GPA 381	The Legislative Process	3
MG 331	Bus. Org. and Mgmt.	3
*HCA Elective	(from 300-400 level)	3
	TOTAL HRS.	16

SUMMER

HCA 400	Practicum/Field Placement	6

SENIOR YEAR

FIRST SEMESTER

MS 311	Bus. Math. and Stat.	3
HCA 420	Health Care Mgmt. I	3
HCA Elective	(300-400 level)	3
Soc. 460	Urban Sociology	3
*BA Elective/MG Elective	(300 level)	3
	TOTAL HRS.	15

SECOND SEMESTER

HCA 460	Health Care Mgmt. II	3
HCA 410	Seminar: Critical Hlth. Issues	3
HCA 450	Health Adm. Research	3
*HCA Elective	(300-400 level)	3
*Elective		3
	TOTAL HRS.	15
	GRAND TOTAL HRS.	134

*Choose two (2) of four recommended courses.

DEPARTMENT OF MEDICAL RECORDS ADMINISTRATION

MRS. NICHOLSON, RRA, Director.

Medical Records Administrators are trained as experts in health information systems and are responsible for designing, planning, organizing, directing and controlling medical record services. Additionally, their numerous functions are: maintaining auxiliary records, including indices

and registers; assisting the medical staff with completion of records, medical research projects and committee functions; supervising department staff members and interaction with other departments in solving problems. Their duties largely depend and differ according to the size and type of institution they serve.

The primary goal of the MRA program is to meet the local and state needs for MRA's to keep pace with the increasing demands in the health care field.

The demand for trained MRA's far exceeds the availability of personnel, as hospitals, clinics, community health centers, insurance companies, local and state health departments, research centers and extended care facilities seek professionals to take care of responsibilities involved. There is an abundance of choices of job opportunities for RRA's depending upon their particular strengths.

ADMISSION REQUIREMENTS

Entering Freshmen:

In addition to meeting minimum admission criteria of Tennessee State University applicants seeking admission to the Medical Record Administration (MRA) program must meet one of the following requirements:

1. High school graduation with a minimum cumulative grade point average of 2.25 on a 4.0 scale.
2. GED test scores of 50 or above for the five subjects tested.
3. A minimum composite test score of 14 on the ACT.

All applicants will be required to provide: Two recommendations, such as an employer, teacher, counselor, etc. Recommendations will not be accepted from relatives.

Advanced Standing (Transfer Students):

Applications will be accepted from transfer students from other colleges or universities, or from other Departments of Tennessee State University.

Applicants with fewer than 30 semester credit hours in courses required by this program must have an overall college grade point average of 2.25 on a 4.0 scale and meet the admission requirements for first year freshman applicants.

Applicants with 30 or more semester credit hous in courses required by the MRA program will be admitted if they have maintained an overall college grade point average of 2.25 or above on a 4.0 scale.

Transfer credits for non-major courses will be accepted according to University policies on admission with advanced standing. All transfer

credits from accredited baccalaureate degree programs will be accepted where evidence is provided that the content of courses previously taken is essentially the same as the content for courses in this curriculum. No credit will be accepted for major field courses in which the student has received a grade lower than a "C".

DEGREE REQUIREMENTS

Curriculum

Pre-Professional Phase

Freshman Year	Sem. Cr. Hrs.	Sophomore Year	Sem. Cr. Hrs.
Eng 101-102	6	Chem 100	4
Math 111-112	7	Zoo 201-202	8
Hist 201-202	6	Eng 211-212	6
P.E. or ROTC	2	Micro 240	4
Bio 111-112	8	Spch 230	3
Art 133, Mus 131	4	HCA 201-202	6
		Elective	3
Total Hours	33	P.E. or ROTC	2
		Total Hours	36

Professional Phase

Junior Year	Sem. Cr. Hrs.	Senior Year	Sem. Cr. Hrs.
MRA 301-302	6	MRA 401-402	6
MRA 310	3	*MRA 410	1
MRA 311-312	6	*MRA 410-L	2
MRA 312-L	1	MRA 411-412	6
MRA 320	2	MRA 430	2
MRA 311	3	MRA 430-L	1
MS 301-303	6	MRA 450	2
Elective (Soc. Sci.) (300-400 level)	4	MRA 461-462	6
		HCA 420-460	6
Total Hours	31	Total Hours	32

TOTAL CURRICULUM HOURS: 132

*Students are required to pass a 40 WPM typing test that is administered by the department prior to the student's enrollment in MRA 410-410L.

Requirements for Graduation

The Medical Record Administration Program offers a Bachelor of Science degree in Medical Record Administration. The program consists of two years of general education courses covering the arts & sciences. The last two years are spent taking the professional or medical record courses. During the junior and senior years, the students complete seven semester hours of clinical affiliation in Medical Record Departments of area hospitals.

Upon successful completion of the required 132 hours included in the curriculum, the student will be eligible for a Bachelor of Science degree.

Following graduation from the program, as accredited by AMRA, the student is eligible to take a national registration examination given by the American Medical Record Association. Upon passing the registration exam, the graduate becomes a Registered Record Administrator (RRA).

ACADEMIC REGULATIONS

1. Students must maintain a 2.25 grade point average on a 4.0 scale in the major courses taken during the junior and senior years to remain in the program.
2. Students will be required to wear lab coats with AMRA insignia on the sleeve to identify them as students while participating in the clinical affiliations.
3. Students will be required to purchase insurance coverage for the perod of time they are participating in the clinical affiliations.
4. Students will be governed by the AMRA code of ethics while participating in the clinical affiliations.

MRA COURSE DESCRIPTIONS

MEDICAL RECORDS ADMINISTRATIONS (MRA)

MRA 301-302. Medical Terminology. (3-3) Basic medical prefixes, suffixes and word roots, terminology of diseases, operations, symptomatology, pharmaceutical terms, anesthesia terms and abbreviations. (Prerequisite: ZOO 201-202 or by approval of instructor).

MRA 310. Current Trends in Health Care Delivery. (3) Current trends in health care delivery; federal, state and local laws and regulations that pertain to the health care field; principals, practice and development of public health including local, state and federal programs. (Prerequisite: HCAP 201-202).

MRA 311. Medical Record Science I. (3) History of Medical Records; the national, state and local professional organizations, medical record personnel; medical record content; admission procedures; numbering, filing, record retention and microfilming; standards of hospital accreditation and documentation of health care; relationship of the medical record administrator to the medical staff; medical staff organization and function.

MRA 312. Medical Record Science II. (3) Preparation of reports and abstracts, statistical concepts; nomenclature; classification and indexing systems. (Prerequisite: ZOO 201-202, MRA 301, 311).

MRA 312L. Medical Record Science Laboratory. (1) Supervised on campus laboratory experienced in all areas covered in MRA 311 and 312. (Prerequisite: MRA 311; Corequisite: 312).

MRA 320. Problems in Medical Record Administration. (2) Independent study and research in a specific area of need determined by the student and instructor. Areas limited to those studied in MRA 311 and 312. (Prerequisite: HCAP 201-202, MRA 311; Corequisite or Prerequisite: 312).

MRA 330. Directed Practicum I. (1) Supervised learning experienced in a health care facility. Experiences received in those areas studied in MRA 311.

MRA 401-402. Fundamental of Medical Science I, II. (3-3) Disease processes affecting the human body, studies through an integrated approach to specific disease entities. (Prerequisite: MRA 301, 302; MCRB 240; ZOO 201-202.

MRA 410. Medical Transcription. (1) Organization and management of transcription units; designed to introduce the student to terminology commonly used in medical reports; explanation and format demonstration of medical reports and available references in the laboratory. (Prerequisite: MRA 301; ZOO 201-202; Pre- or Corequisite: MRA 302 or approval of instructor).

MRA 410L. Medical Transcription Laboratory. (2) Medical transcription; integrated concepts of medical terminology, anatomy and physiology. Practical application of theory regarding transcription of medical reports and abstracting medical records. (Corequisite: MRA 410).

MRA 411. Medical Record Science III. (3) Legal Aspects of Medical Records and Medical Care Evaluation. (Prerequisite: MRA 311, 312; Pre- or Corequisite: MRA 401-402).

MRA 412. Medical Record Science IV. (3) Organization and management principles as applied to administration of medical record services; principles of systems design and analysis as applied to the processing of medical record information; professional ethics; labor relations/unions; personnel administration and interpersonal relationship in a health care setting; inservice education. (Prerequisite: MRA 411; Pre- or Corequisite: HCAP 420-460).

MRA 430. Advanced Medical Record Seminar. (2) Designed for students to explore the current issues and development in health information systems; application of automated data processing techniques to the health field; research technique. (Prerequisite: MRA 312, 320, 330; Pre- or Corequisite: MRA 411, 412).

MRA 430L. Advanced Medical Record Seminar Field Trips. (1) Field trips designed to acquaint students thoroughly with community opportunities and resouces, as a guide for setting up a medical record department. (Corequisite: MRA 430).

MRA 450. Senior Research Project. (2) Independent research project; the topic relating to a specific aspect of medical record administration to be determined in consultation between the student and director. (Prerequisite: MRA 411 Senior classification in the Medical Record Administration program; Pre- or Corequistie MRA 412).

MRA 461. Directed Practicum II. (2) Supervised learning experiences in a health care facility. Experiences received in those areas studied in MRS 411, and 412. (Prerequisite: MRA 312, 312L).

MRA 462. Practicum in Medical Record Administration. (4) Student assigned to health care facilitieis for supervised learning experiences in the administrative aspects of medical record practice, with emphasis on the administrative functions of the Medical Record Administrative program; MRA 412, and 461.

CURRICULUM IN MEDICAL TECHNOLOGY

Leading to a Bachelor of Science Degree in Medical Technology and a Cerfificate in Medical Technology

Tennessee State University has affiliations with the Vanderbilt-Veterans Administration School of Medical Technology and the School of Medical Technology of Hubbard Hospital, Meharry Medical College, for the purpose of participation in their medical technology programs. This curriculum consists of a three-year designated program at Tennessee State University and the fourth year to consist of the 12 month medical technology program at either the Vanderbilt-VA School of Medical Technology or the School of Medical Technology of Hubbard Hospital, Meharry Medical College. Successful completion of the joint four year program results in a Bachelor of Science Degree in Medical Technology, to be granted by Tennessee State University, and a Certificate of Medical Technology to be granted by Vanderbilt-VA School of Medical Technology or the School of Medical Technology of Meharry Medical College contingent to acceptance in either one of these institutions. Graduates from this program are eligible to take the national examination for certification by the American Society of Clinical Pathologists, to become certified medical technologists or registered medical technologists. Job opportunities include employment in hospitals, independent laboratories, medical group practices, clinics, public health agencies, pharmaceutical firms, and research institutions.

PROGRAM FOR MEDICAL TECHNOLOGY
(First Three Years at Tennessee State University)

FRESHMAN YEAR	Semester Hours Fall	Spring
BIO 111-12	4	4
CHM 121-22	3	3
CHM 121L-22L	1	1
ENG 101-2	3	3
MATH 111-12	3	3
PHIL, MUS, ART, DRAMA. (Combination of any two courses)	2	2
PE or AFROTC	1	1
	17	17

JUNIOR YEAR	Semester Hours Fall	Spring
BCHM 310	3	
BCHM 310L	2	
MCRB 240		4
BCHM 341-42	3	3
BCHM 341L-342L	2	2
SOC SCI 300-400	3	
BIO or CHM 300-400 (E)	3	6
	16	15

SOPHOMORE YEAR	Semester Hours Fall	Spring
ENG 201-2	3	3
CHM 311-12	3	3
CHM 311L-12L	2	2
PHYS 211-12	4	4
HIST 201-2	3	3
PE or AFROTC	1	1
	16	16

SUMMARY OF FIRST THREE YEARS

Total Semester Hours	96
Basic Science	53
General Education	33
Electives	9

FOURTH CALENDAR YEAR (52 weeks)

MEDICAL TECHNOLOGY COURSES AT THE SCHOOL OF MEDICAL TECHNOLOGY, MEHARRY MEDICAL COLLEGE

Hematology
Immuno-Hematology
Clinical Biochemistry
Microbiology
Serology
Histology
Pulmonary Functions
Elector-Cardiography
Miscellaneous Lectures
Orientation
Electrophoresis

MEDICAL TECHNOLOGY COURSES AT VANDERBILT-VETERANS ADMINISTRATION SCHOOL OF MEDICAL TECHNOLOGY

Bacteriology
Biochemistry
Blood Bank
Electrocardiography
Hematology
Histopatholoy
Parisitology
Radioisotopes
Serology
Urinalysis

THE SCHOOL OF ARTS AND SCIENCES

SCHOOL OF ARTS AND SCIENCES

Robert J. Hudson, Ph. D., Dean

Purpose

The general purpose of the School of Arts and Sciences is two-fold: liberal and technical. The courses which make up its curriculum are offered in the areas of Humanities, Natural Sciences, and Social Sciences. The baccalaureate degree may be earned in one of these broad areas of concentration or in a specific discipline within one of the fourteen departments in the School.

Because of the breadth and fundamental nature of its curriculum and the necessity of the student to acquire a reasonable mastery of a single field of concentration, the School of Arts and Sciences provides a basic undergraduate education for those students planning (1) to enter the professions, (2) to continue in graduate study, or (3) to engage, upon graduation, in the gainful occupations of American life.

Through the School of Arts and Sciences, the University grants the Bachelor of Arts and Bachelor of Science degrees. The requirements for these degrees are satisfied normally in four years.

Undergraduate Programs

Two undergraduate programs are offered, each leading to the Bachelor's degree. One program prepares the student for the teaching profession; the second, for professions other than teaching.

The departments offering teacher certification curricula are: Art, Biological Sciences, Chemistry, Communication, English, Government and Public Affairs, History and Geography, Modern Foreign Languages, Music, Physics-Mathematics, and Sociology.

Several departments offer training for professions other than teaching. The purpose of these departments is to train students for successful performance as specialists in somewhat restricted fields of specialization. Pre-professional curricula are designed to enable students to succeed in their professional programs by electing either to major in a specific discipline or to complete a concentration as described below.

General Degree Program

The general degree program provides for the specialization usually associated with a "major," but at the same time encourages students, working with the adviser, to design a course of study to reflect their special interests and unique professional goals.

While the core requirements provide a foundation for a broad general education, a minimum of required courses at the junior and senior level allows flexibility in combining disciplines not traditionally associated

with each other. Adult students may find the general program especially well suited to the enhancing of their proficiency in a present career while they gain the knowledge and skills necessary for an alternative career.

The general program, leading to either a Bachelor of Arts or a Bachelor of Science degree in Arts and Sciences, is the only degree program available at Tennessee State University with concentrations in the fields listed below:

Anthropology (Dept. of Sociology)
Art
  Studio Art
  Communications Design
Computer Science (Dept. of Physics-Mathematics)
English-Journalism
Geology (Dept. of Physics-Mathematics)
Gerontology (Dept. of Social Welfare)
Philosophy
Pre-Pharmacy (Dept. of Biological Sciences)

These nine programs are described, each under its own special heading, elsewhere in this section of the catalog.

All of the fields in which a student may earn a degree in the general program are given in the following lists, which are grouped by area of concentration:

Humanities

The Humanities introduce the student to a broad range of questions and ideas focusing on man as a being with moral, historical, creative and philosophical interests. Disciplines include art, music, history, philosophy, English, journalism, religious studies,* speech* and foreign languages which include French, German, Russian and Spanish.

The student gains a comprehensive, liberal education by following the requirements of the General Degree Program for either the Bachelor of Arts or Bachelor of Science degree. These degree programs allow specialization in studio art, communications design, history, English, philosophy, foreign language and English-journalism.

The student in Humanities may prepare for advanced study, develop creative skills or use this knowledge in a wide variety of careers.

Natural Sciences

The Natural Sciences offer formal study in the disciplines of biololgy, chemistry, computer science, geology, mathematics and physics.* Lower division courses are offered in astronomy. Preprofessional curricula preparing the student for studies in pharmacy, dentistry and medicine are also offered.

A Natural Science education enhances a student's awareness of the natural environment and prepares the student to engage in logical thought processes. Such an education also readies the student for further studies in chosen scientific and professional fields.

*During the 1979-80 academic year a student may not be able to earn 12 upper division hours in these subjects.

Social Sciences

The Social Sciences offer formal study in the disciplines of anthropology, economics, geography,* gerontology,* political science, psychology and sociology.

The function of the Social Sciences is to provide students with a disciplined approach to both the theories and methodologies which will assist them in understanding man in society and culture.

Courses are intended for students who will pursue graduate study and for those who are preparing for professional careers in government, business, and law. The overall objectives are to assist students in gaining a clearer understanding of their behavior and to become aware of the relevance between the social sciences and significant social issues in contemporary society.

General Requirements for the Degree

1. A minimum of 128 hours is required for graduation. Credit for courses in military science and physical education are excluded in arriving at this total.
2. A minimum of 60 upper division hours must be completed.
3. A minimum of 32 upper kivision hours must be completed in Arts and Sciemces.
   a. Twenty-four upper division hours must be completed in one of the three areas of concentrations; 16 of these must be in a single discipline.
   b. Nine upper division hours must be completed in a second discipline, which may be in any area of concentration.
4. At least 12 upper division hours in the area of concentration must be taken at TSU.
5. A 2.0 grade average must be maintained in the area of concentration.

*During the 1979-80 academic year a student may not be able to earn 12 upper division hours in these subjects.

CORE REQUIREMENTS

B.A. Degree

I. Humanities (36 hours)
   A. Literature and languages: 26 hours

1. Composition: 6 hours.
   English 101-102 or 101H-102H. (Students with as average of B or above in English 101-102 taken at this University may substitute (a) courses in English or American literature at the 300 or 400 level for all or any part of the sophomore sequence or (b) 9 hours in foreign literature at the 300 or 400 level. All first-year students must enroll in Eng. 101 during the first semester of their registration and must continue in succeeding terms to take freshman English until the requirement is met.)
2. Foreign Language: 14 hours
   Completion of *one* foreign language through the intermediate (200) level, either by taking and passing satisfactorily the introductory and intermediate sequences or by passing with a grade of "B" proficiency written and oral tests covering this material. Students having an exceptional high school or other background in a foreign language may be accorded advanced placement and, therefore, may not be required to take the entire 14 hours.
3. Literature: 6 hours
   a. English 211A-212D, 211-212H, or 213.
   b. Students with an average of B or above in English 101-102 taken at this University may substitute any 6 hours of upper division work in either English literature or foreign language literature.

B. History: 6 hours
   Any combination selected from History 201-202 (201-202H).

C. Philosophy and the Arts: 6 hours
   Any combination of lower division work in Art, Music, or Philosophy (except Philosophy 250-251) or Religious Studies.

II. Mathematics and Natural Sciences (11 or 12 hours)

A. Rational Thought: 3 or 4 hours
   Either Mathematics 111 or Mathematics 261 or Philosophy 250 (Logic).

B. Natural Sciences: 8 hours
   Select one of the following options:
   Biology 105-106
   Zoology 201-202
   Astronomy 111-112
   Chemistry 121H-122H, 121HL-122HL
   Geology 101-102
   Physics 131-132
   Physics 211-212

III. Social Sciences (12 hours)
   Any 12 lower division hours, with a maximum of 6 from any one discipline.

B.S. Degree

I. Humanities (24 hours)

A. English: 12 hours. English 101-102 or 101-102H (in sequence) and two courses from 211A-212D, 211-212H, or 213.
Students with an average of B or above in English 101-102 taken at this University may substitute (a) courses in English or American literature at the 300 of 400 level for all or any part of the sophomore sequence or (b) 9 hours in foreign literature at the 300 or 400 level. (All first-year students must continue in succeeding semesters to take freshman English until the remaining requirement is met).

B. History: 6 hours selected from History 201-202 (201-202H)—any combination is acceptable—should be taken during the freshman year.

C. Additional Humanities: 6 hours
Either (1) One foreign language sequence of 6 hours or (2) Lower division courses selected from the disciplines of Art, Journalism, Music, Philosophy, Religious Studies, or Speech to total six hours.

II. Natural Sciences (32 or 33 hours)

A. Mathematics: 8 hours. Math 111, 113 or Math 261-262

B. Biological Sciences: 12 hours
Select one of the following options:
Biology 105-106
Zoology 201-202

C. Physical Sciences: 12 hours
Select one of the following options:
Astronomy 111-112
Chemistry 121H-122H, 121HL-122HL
Geology 101-102
Physics 131-132 and 231-232
Physics 211-212

III. Social Sciences (12 hours)
Any 12 lower division hours, with a maximum or 6 from any one discipline.

DEPARTMENT OF ART

Mr. Jones (Acting Head)

The Art Department offers a major in Art leading to the degree of Bachelor of Science. The department also offers a minor in Art the curriculum of which is listed below.

The minimum number of semester hours required for the Bachelor of Science Degree in Art is 132. The minimum number of semester hours in Art required are 57 of which 38 hours must be on the 300 and 400 levels.

1. Art Majors should earn at least a grade of "C" in courses taken in the department, otherwise the course in question must be repeated.
2. Art Majors may be required to repeat any of the supporting courses in which a grade of "D" has been received.
3. Art Majors who show evidence of fundamental weaknesses in an area of study may be requested by the head of the department, to take additional course work in the area.
4. A transfer student is expected to present a comprehensive portfolio of his/her work.

5. Art Majors are expected to keep comprehensive portfolios of their work to be inspected periodically.
6. The department reserves the right to retain at least one example of the student's creative work in a given course.
7. All persons pursuing an organized program of study in the department are expected to participate in the program of the Art Guild.
8. Art Majors are expected to make at least two museum or gallery tours under the auspices of the Art Guild.

The Art Curriculum with emphasis on Art Education has these objectives: (1) prepares the student to teach art on the elementary and secondary level; (2) to offer courses which stimulate students to learn about art and express themselves creatively as a part of their cultural growth; (3) to guide students in the understanding of the importance of art experience in public school education, and life in general; (4) to guide students in the realization of the many ways that art affects their daily living; (5) to aquaint students with the arts of all people through assigned reading, observation and visual aids; (6) to show the relationships of art to other fields of learning; (7) to counsel and encourage students who show interest and ability for artistic growth to continue the study of art in its various forms so as to be instrumental in placing art education in the public school curriculum on a level with other school subjects; (8) to effectively employ the use of leisure, and to develop creative productions.

FOURTH CALENDAR YEAR (52 weeks)

CURRICULUM FOR A MAJOR IN ART WITH EMPHASIS IN ART EDUCATION

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3	ENG 211-212	3	3
ART 100	1		SCI 121-122	3	3
ART 101-132	3	3	HIST 201-202	3	3
ART 121-122	3	3	PSY 242		3
MATH III		4	ED 201	3	
SOC 211, 330	3	3	ART 221, 322	3	3
MUS 131	2		PE or AFROTC	1	1
PE or AFROTC	1	1	HLTH 151	2	
	16	17		18	16

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
PSY 312	3		ART 326	3	
ED 387		3	ART 434	3	
ART 301-302	3	3	ART 450	3	
ART 331-332	3	3	SOC 360	3	
ART 341-342	3	3	ED 301	3	
ART 350-351	3	3	ART 371		3
ED 465	3		ED 491		3
	18	15	ED 472		9
			ART 360	3	
				18	15

A minor in Art consists of 21 semester hours of art, including courses in Art 101 (3) hours; 121 (3); 331 (3); 332 (3) and 360 (3).

An efective is to be selected from Art 350, 221 or 301.

EMPHASIS IN STUDIO ART, COMMUNICATION DESIGN/ COMMERCIAL ARTS, AND ART HISTORY

The Art curriculum, with emphasis on Studio Art, Commercial Art/ communications Design, and Art History: (1) Prepares the student for advanced graduate study in a studio discipline of interest; (2) prepares strengthens the student's skills for professional work in the arts; (3) prepares the student as a graphic designer/commericial artist; and (4) prepares the student with the necessary foundation that will enable him to broaden his knowledge in the field of Art History and Criticism through further study and/or practice.

Seventy-nine hours of art courses including:

a. Orientation, Introduction to Art, Basic Design, Drawing I-II, Drawing & Pictorial Design I-II, Painting I-II, Ceramic I-II, Art History I-II-III, Art History Elective, Sculpture I-II, Printmaking I-II, Aesthetics, Senior Seminar.

b. Six Semester hours of individual problems

c. Eighteen Semester hours in major area of concentration. Students with emphasis in Communications Design/Commercial Art twenty-four semesters needed in area of concentration.

Areas of concentration in Studio Art are Printmaking, Ceramics, Painting and Sculpture.

CURRICULUM FOR A MAJOR IN ART WITH EMPHASIS IN STUDIO ART

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
MATH 111-112	4	3
SOC 211		3
MUS 131	2	
ART 100	1	
ART 101, 132	3	3
ART 121-122	3	3
PE or AFROTC	1	1
	17	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-212	3	3
SCI 121-122	3	3
HIST 201-202	3	3
ART 210-220	3	3
ART 221	3	
ART 251		3
PE or AFROTC	1	1
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
THEA 111	2	
ART 300 (Aesthetic Or Philosophy 323)		3
ART 301-302 (Ceramics)	3	3
ART 322 (Painting)		3
ART 326 (Photography)	3	
ART 331-332 (Art Hist I-II)	3	3
ART 341-342 (Sculpture)	3	3
ART 350-351 (Printmaking)	3	3
	17	18

SENIOR YEAR	Credit Hours Fall	Spring
PHIL (300 level)		3
SP 200	2	
ART HIST 434	3	
ART HIST Elective (300-400 level)		3
ART 400, 401, 402 (Individual Prob)	3	3
ART (Major Emphasis) (300-400 level)	3	3
ART 450	3	
Electives (300-400 level)	3	3
	17	15

DEPARTMENT OF ART

COURSE OFFERINGS

Art 100. Orientation to Art. (1) An orientation course designed to acquaint freshman and new students with the department curriculum offerings, requirements, studio discipline, and general study habits of art majors.

Art 101. Introduction to Art. (3) An introduction to the fundamental principles of the visual arts with stress on appreciation and the significance of art in contemporary life.

Art 110. Introductory Studio Course I. (3) Two dimensional design and color theory; interpretative drawing, object and figure; three dimensional design.

Art 120. Introductory Studio Course II. (3) Two dimensional design and color theory; interpretative drawing, object and figure; three dimensional design.

Art 121. Fundamentals of Drawing I. (3) An introduction to various tools, techniques and materials of basic drawing. A study of perspective and function of the visual elements of composition.

Art 122. Figure Drawing II. (3) An exploration of formal and expressive potentials of the figure. Traditional and experimental approaches to drawing. Prerequisite: Art 121.

Art 132. Design. (3) A contemporary approach to basic visual elements in design as they are related to two and three dimensional problems. Problem-stating, problem-solving will be a vital part of three-dimensional form organization; with emphasis on individual creative expression in design theory and innovation in the use of materials and techniques. Lettering techniques will be included in so far as it relates to design.

Art 133. Art Appreciation. (2) A course for all students interested in understanding the visual arts in everyday experiences. An introductory survey of the visual arts dealing with fundamentals and historical fragmentations of Eastern and Western civilizations.

Art 133 H. Honors Art Appreciation (2).

Art 171. Introduction to Art History I. (3) Prehistoric through the Renaissance.

Art 172. Introduction to Art History II. (3) Baroque through Twentieth Century art.

Art 210. Drawing and Pictorial Design I. (3) Composition, stressing figure and environmental situation. Prerequisite: Art 110-120, or 121-122, 132.

Art 220. Drawing and Pictorial Design II. ( ) Composition, stressing figure and environmental situation. Prerequisite: Art 110-120, or 121-122, 132, 210.

Art 221. Introductory Painting I. (3) The nature of modern techniques and their versatility in the use of oil and acrylics. Prerequisite: Art 110-120 or 121-122, 132.

Art 231. Introductory Painting II. (3) The nature of modern techniques and their versatility in the use of oil and acrylics. Prerequisite: Art 110-120 or 121-122, 132, 221.

Art 240. History of Film. (3) An historical study of the development of film as an art medium.

Art 241. Crafts. (3) An introduction to the processes, materials and techniques available to the artist-craftsman in designing Two and Three Dimensional art forms in clay, fibers, and metals. Emphasis is on development of functional/non-functional forms, as well as, artistic expression.

Art 251. Lettering. (3) Technique of letter indication, finished lettering, letter design, typography and film lettering, usage and adaptation of lettering skills to practical problems. Prerequisite: Art 110 or 132.

Art 252. Layout. (3) Preparation of roughs and comps, emphasis on skills as well as taste in design. Principle of basics stressed, such as composition and perspective. Prerequisite: Art 110-120 or 121-122, 132.

Art 253. Illustration. (3) Study of pictorial design as used by the graphic designer/commercial artist. All media including photography. Prerequisite: Art 251-252.

Art 300. Aesthetics. (3) Problems in the philosophy of art and art criticism; aesthetic experience; truth and art; aesthetic value. Prerequisite: Previous art or philosophy courses.

Art 301. Ceramics I. (3) An introductory course in pottery making including designing, hand forming, decorating and firing ceramic objects.

Art 302. Ceramics II. (3) Experiences in designing, forming decorating, firing and glazing functional and non-functional forms with emphasis on wheel throwing techniques. Prerequisite: Art 301.

Art 310. Advanced Drawing and Pictorial Design I. (3) Advanced compositions, stressing figure. Prerequisite: Art 210-22 or consent of instructor.

Art 311. Graphic Design. (3) Emphasis on creative advertising problem-solving within an area of printed materials. Prerequisite: Art 251-252.

Art 312. Production. (3) Technology and skills necessary to the designer/commercial artist. Printed technology, preparation of finished art suitable for reproduction. Prerequisite: Art 251-252.

Art 313. Advanced Illustration. (3) Study of advanced pictorial concepts, methods and techniques. Prerequisite: Art 253.

Art 320. Advanced Drawing and Pictorial Design II. (3) Advanced compositions stressing figure. Prerequisite: Art 310 or consent of instructor.

Art 321. Intermediate Oil Painting I. (3) Further study of modern techniques in oil and acrylics. Prerequisite: Art 221-331 or consent of instructor.

Art 322. Intermediate Oil Painting II. (3) Advance development in various, painting media and techniques with emphasis on oils and acrylics. Individual selection of content encouraged. Prerequisite: Art 321 or consent of instructor.

Art 326. Photography. (3) The fundamentals of photographic process, including the proper use and maintenance of the camera, photographic enlarger and related equipment.

Art 331. Art History I. (3) An introductory survey of the development of the visual arts form Pre-historic through the Early Medieval Era.

Art 332. Art History II. (3) An introductory survey of the development of the visual arts from Romanesque Art through the Baroque in France and England.

Art 333. Watercolor Painting I. (3) Composition in transparent and opaque watercolor. Prerequisite: Art 110-120 or 121-122, 132 or consent of instructor.

Art 334. Watercolor Painting II. (3) Composition in transparent and opaque watercolor. Prerequisite: Art 221 or 333.

Art 341. Sculpture I. (3) An introduction to the tools and techniques of indirect sculpture, with emphasis on modeling, mold-making and casting. Prerequisite: Art 132 or 110-120.

Art 342. Sculpture II. (3) Experimentation with the various tools and techniques of direct sculpture, with emphasis on working directly in clay, plaster, wood, stone, plastic, fiberglass and metal. Prerequisite: Art 341.

Art 350. Printmaking I. (3) An introductory course in the art of printmaking, its history, methods, and techniques, including a comprehensive study of various printmaking processes: Intaglio (etching, drypoint, engraving), Planographic (lithography), Relief (blockcuts), Stencil (serigraphy), and Collagraphy.

Art 351. Printmaking II. (3)

Art 352. Intermediate Printmaking I. (3) An intermediate printmaking course, with emphasis on professional development of various printmaking processes, with emphasis on lithography, photo-silkscreening, photo-etching, and collography. Work completed in this course should qualify as part of senior exhibition. Prerequisite: Art 350.

Art 353. Intermediate Printmaking II. (3)

Art 360. Public School Art. (3) A survey of various education theories and problems encountered on the elementary and secondary levels. Reading, discussions, and studio experiences.

Art 370. History of Nineteenth-century painting. (3) Europe and America.

Art 371. Art Education (Methods). (3) To give students experience and understanding in methods, materials and media as they relate to the art program in grades level, 1-12.

Art 372. History of Twentieth-century painting. (3) Europe and America.

Art 373. History of Modern Sculpture. (3) Sculpture in Europe and America during the nineteenth and twentieth centuries.

Art 375. History of Classical Art. (3) The art of ancient Greece and Rome.

Art 381. History of American Art. (3) Art from the Colonial Period to the present day.

Art 392. History of Baroque Art. (3) Art of the seventeenth and eighteenth centuries in Italy, France, Germany, England and the Low Countries.

Art 400. Individual Problems. (3) Upper division students only.

Art 401. Individual Problems. (3) Upper division students only.

Art 402. Individual Problems. (3) Upper division students only.

Art 411. Three Dimensional Design. (3) Display-design package, design point of purchase, advanced concepts. Prerequisite: Art 311.

Art 412. Advanced Graphic Design. (3) Primarily planned to coordinate graphics projects. Prerequisite: Art 311, 411.

Art 421. Advanced Oil and Acrylic Painting I. (3) Advanced study and original projects in oil or acrylics. Prerequisite: Art 321-322 or consent of the instructor.

Art 422. Advanced Oil and Acrylic Painting II. (3) Advanced study and original projects in oil or acrylics. Prerequisite: Art 421.

Art 431. Watercolor III. (3) Advanced compositions in transparent and opaque watercolors. Prerequisite: Art 221, or 331-332 or consent of the instructor.

Art 432. Watercolor IV. (3) Advanced compositions in transparent and opaque watercolors. Prerequisite: Art 431.

Art 434. Art History III. (3) Contemporary. A course dealing with special topics on the development of the visual arts from Neo-Classicism through the Twentieth-Century.

Art 450-I. Senior Project. (3) The project is designed to give seniors in the department the opportunity of selecting and developing creative and written research related to art. This project is to be done under the supervision of the student's advisor and department head. Three copies of the written project should be typed and approved. One copy is returned to the student and two copies filed in the department.

Art 450 II. Senior Seminar. (3) Required of all senior majors in studio art. Emphasis on visiting galleries and collections; discussions and critical reviews thereof. Review of historical background and regular critiques of student work in preparation for defense of exhibition and comprehensives also integral.

Art 452. Advanced Printmaking I. (3) An advanced printmaking course with emphasis on in-depth, individual approaches in the various printmaking processes. Prerequisite: Art 351.

Art 453. Advanced Printmaking II. (3)

Art 201. African-American Art. (3) A general historical survey of African-American Artists, Art, and Artifacts.

Art 454. Afro-American Art I. (3) A survey of Afro-American Artists through the exploration and study of sculptural and ceramic forms.

Art 455. Afro-American Art II. (3) A survey of Afro-American Artists through the exploration and study of the painting and print media.

DEPARTMENT OF BIOLOGICAL SCIENCES

DR. RISBY (Head)

The curriculum of the Department of Biological Sciences is designed to fulfill the requirements in the areas of (1) teacher education, (2) preprofessional training for the medical branches, including health, environmental and basic biological sciences; (3) graduate training of inservice teachers and professionals; and (4) service courses for other departments of the University. The biology curriculum, therefore, allows preparation with emphasis based on the student's interest, in one of the following areas; (1) secondary teacher education for teaching biology, general science, and chemistry, (2) professional biology, zoology or botany-microbiology; (3) premedicine or pre-dentistry.

The major undergraduate curriculum offerings terminate in the Bachelor of Science or Arts degree. Upon entering, students desiring the Teacher Education emphasis should select the curriculum for the Teacher Education emphasis with a major in Biology. Those desiring the professional emphasis should select the curriculum for professional emphasis in Zoology or the curriculum for a professional emphasis in Botany-Microbiology. The student must pass a departmental sophomore comprehensive examination over biological principles to be taken during the second semester of the sophomore year. Upon successful completion of the first and second year, and passing the departmental sophomore comprehensive test, the student is to proceed in his specific major emphasis area under the guidance of his major adviser at the beginning of the first semester of the junior year. No grade less than "C" in any

major course will be accepted as credit toward meeting departmental requirements.

A minimum number of 132 semester hours are required for each major emphasis area (60 semester hours must be on the 300-400 level). Thirty-three (33) semester hours are required in the major of which a minimum of 16 must be on the 300-400 level. One year of German or French or equivalents must be included. This requirement may also be met by passing a foreign language proficiency test for French or German.

A student must qualify for the Bachelor of Arts degree by completing the equivalent of 20 semester hours of German or French in addition to the regularly prescribed courses.

Seniors who have demonstrated high achievements in their major are encouraged to take Biology 460, an honors research program. This course offers opportunity to gain experience in research under the direction of the Departmental Faculty.

An undergraduate minor in the Department consists of a minimum of 24 semester hours, 16 of which should be taken in sequence in Biology 111-112, Bacteriology 240, and Botany 220. General Chemistry 121-122 is required as a supporting related course and must precede Bacteriology 240. The remaining 8 hours of the minor must be on the 300 and-or 400 level and may be elected in the minor area desired by the student. Any student desiring to be endorsed to teach biology must have the biology minor equivalent of 24 hours plus one year of general chemistry. No grade less than "C" in the minor will count toward meeting minor requirements of the Department of Biological Sciences.

COMBINATION CURRICULA FOR THE STUDY OF MEDICINE AND DENTISTRY

Curricula preparatory for the study of medicine and dentistry are offered at Tennessee State University in cooperation with Meharry Medical College. The curricula are joint programs between the two institutions and qualify students for the bachelor's degree. The first part of this joint curriculum is offered to regularly enrolled students at Tennessee State University who are pursuing a Bachelor of Arts or a Bachelor of Science curriculum with a major in the Biological Sciences.

The first two years of this curriculum consist of the Basic Curriculum for Professional Major in the Biology Lower Division. The third year consist of the Junior Year of either the curriculum for Professional Emphasis in Zoology or in Botany and Microbiology of the Upper Division of Biological Sciences.

The fourth year of the joint curriculum is offered to those students who are admitted to Meharry Medical College. At the successful completion of

the freshman year curriculum in the School of Dentistry or School of Medicine of Meharry Medical College, the student makes application to Tennessee State University for the Bachelor of Arts or Science degree. Upon joint recommendation of Meharry Medical College and Tennessee State University, the student becomes a candidate for the Bachelor of Arts or Science degree. The degree is awarded by Tennessee State University.

CURRICULUM FOR A MAJOR IN BIOLOGY (Professional Emphasis in Zoology)

FRESHMAN YEAR	Credit Hours Fall	Spring
BIO 111-12	4	4
MATH 161-62	4	4
ENG 101-02	3	3
HIST 201-202	3	3
PE or AFROTC	1	1
BIO 100	1	
MUS 131 or ART 133		2
	16	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
MCRB 240	4	
BOT 220		4
ENG 211-12	3	3
GER or FR 101-02	4	4
CHEM 121-22	4	4
PE or AFROTC	1	1
BIO 250		0
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
BIO 370	4	
ZOO 330		4
CHEM 311-12	5	5
PHY 211-12	4	4
PSY (300 level)	3	
BIO Elective		4
PHIL 301 or 323	2	
	18	17

SENIOR YEAR	Credit Hours Fall	Spring
ZOO 430	4	
BIO 491-92	1	1
BIO 480		4
BIO Electives (300-400 level)	4	4
SOC 360 or HIST (300 level)	3	
Electives (300-400 level) (BCHM 341-42 recommended)	4	8
	16	17

CURRICULUM FOR A MAJOR IN BIOLOGY (Professional emphasis in Botany & Microbiology)

FRESHMAN YEAR	Credit Hours Fall	Spring
BIO 111-12	4	4
MATH 161-62	4	4
ENG 101-02	3	3
HIST 201-02	3	3
PE or AFROTC	1	1
BIO 100	1	
MUS 131 or ART 133		2
	16	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
BOT 220		4
MCRB 240	4	
GER or FR 101-02	4	4
ENG 211-12	3	3
CHEM 121-22	4	4
PE or AFROTC	1	1
BIO 250		0
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
BIO 370	4		BOT 420	4	
MCRB 310		4	MCRB 410		4
BOT 320		4	Electives (MCRB or BOT		
CHEM 311-12	5	5	300-400)	4	4
PHY 211-12	4	4	BIO 491-92	1	1
PSY (300 level)	3		SOC 360 or HIST		
PHIL 301 or 323	2		(300 level)	3	
	18	17	Electives (300-400) (BCHM		
			341-42 Recommended)	4	8
				16	17

CURRICULUM FOR A MAJOR IN BIOLOGY (With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
BIO 111-12	4	4	MICRO 240	4	
MATH 161-62	4	4	BOT 220		4
MUS 131		2	CHEM 121-22	4	4
PE or AFROTC	1	1	ENG 211-12	3	3
HIST 201-02	3	3	BIO 100	1	
ENG 101-02	3	3	ART 133		2
	15	17	PE or AFROTC	1	1
			BIO 250	0	0
			ED 201		3
			PSY 242	3	
				16	17

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
BIO 370	4		ED 465	3	
ZOO 340, MICRO 310			ED 491		3
or BOT 420	4	4	SCI ED 371		3
PHYS 211-12	4	4	ED 472s		9
ED 301-387	3	3	BIO 480	4	
PHIL 301 or 323		2	PSY 312	3	
Elective (300 or 400)			CHEM 360	5	
(Social Science)	3		BIO 491 or 492	1	
BIO Elective (300-400			HLTH (Elective)	2	
level)		4	(300-400 level)		
	18	17		18	15

DEPARTMENT OF BIOLOGICAL SCIENCES

BIOLOGY (BIO)

College Orientation 100. (1) Designed to aid in the adjustment of freshmen and new students to the college community. Consideration of Tennessee State University's heritage and mission, personal development, study method evaluation and careers in the biological sciences.

BIO 105-06. General Biology. (4-4) This course is designed for the biology major as well as the non-major and provides a study of biological concepts and a survey of the plant and animal kingdoms. Lecture: 2 credits; Laboratory: 2 credits per semester.

BIO 111-12. Principles of Animal Biology. (4-4) This course is designed to provide a sound understanding of structure function and life characteristics of animals. Lecture: 2 credits; Laboratory; 2 credits per semester.

BIO 250. Sophomore Biology Review. (0) Required for all second semester sophomores. This course, a comprehensive review of basic biologic principles, covers the first two (2) years in the major field. The course terminates in a comprehensive examination which must be passed prior to selecting the specific major.

BIO 370. Principles of Genetics. (4) An introduction of genetics, including classical and modern approach, the laws of heredity, role of heredity in developmental physiology, and the relation between heredity and evolution. Prerequisites: Biology 111, 112 or Biology 105, 106, and Botany 220. Lecture: 2 credits; Laboratory: 2 credits.

BIO 380. Biometrics. (3) An introduction to the methods of statistics that are of particular interest to biologists for experimental design and interpretation. Prerequisites: Math 161, Biology 111, 112 or Biology 105, 106 and Botany 220 or their equivalents. (e)

BIO 440. Special Topic. (3) Student or faculty generated course. Scope of subject matter to be determined by students and instructor. Prerequisite: 12 hours upper division biology and permission of instructor. (e)

BIO 460. Junior Honor's Research. (3) Open to seniors of outstanding attainment who have demonstrated high achievements in their major field. It offers opportunity to do individual research under the direction of a member of the Department Faculty. (e)

BIO 470. Microtechniques. (4) Methods for microscopic study of tissues. Prerequisites: Biology 111, 112, or Biology 105, 106, Botany 220 and Chemistry 121, 122 or their equivalents. Lecture: 1 credit; Laboratory: 3 credits. (e)

BIO 480. Principles of Ecology. (4) Fundamental ecological principles, with special reference levels of organization, population and community properties, structural adaptation, functional adjustments and other factors affecting the distribution of organisms. Prerequisites: Biology 111, 112 or Biology 105, 106 and Botany 220. Lecture: 2 credits; Laboratory: 2 credits.

BIO 490. Cell Biology. (4) Structure and function of cells and their components. Prerequisites: Chem. 312 and Biology 111, 112, or Biology 105, 106 and Botany 220 or their equivalents. (e)

BIO 491-92. Biology Seminar. (1-1) Current problems in biology. A minimum of one semester required of all seniors in the Department. Meets one hour per week.

BOTANY (BOT)

BOT 220. General Botany. (4) Deals with a study of the anatomy, physiology and taxonomy of plants. Lecture: 2 credits; Laboratory: 2 credits.

BOT 320. Plant Morphology. (4) Consideration of the structure, embryology, and phylogeny of higher vascular plants. Prerequisites: Botany 220. Lecture: 2 credits; Laboratory: 2 credits.

BOT 420. Introductory Plant Physiology. (4) Consideration of the functions of digestion, mineral, nutrition, growth, photosynthesis, respiration, translocation, photoperiodism, plant hormones, transpiration and water relations as occurring in a typical green plant. Prerequisites: Botany 220 and General Chemistry 121, 122 or equivalents. Lecture: 2 credits; Laboratory: 2 credits.

BOT 430. Mycology. (4) Morphology, taxonomy, development and phylogeny of fungi. Prerequisite: Botany 220. Lecture: 2 credits; Laboratory: 2 credits. (e)

BOT 440. Introductory Plant Pathology. (4) A course dealing with plants and their diseases, both infectious and non-infectious diseases; plant disease control, impact of plant disease on agriculture. Prerequisites: Botany 220. Lecture: 2 credits; Laboratory: 2 credits (e)

BOT 460. Field Botany. (4) A course designed to acquaint the student with basic principles of plant classification and identification, the use of manuals with reference made to the families, genera and species of the local flora. Prerequisites: Botany 220 or equivalent. Lecture: 1 credit; Laboratory of Field Periods: 3 credits. (e)

MICROBIOLOGY (MCRB)

MCRB 240. Principles of General Bacteriology. (4) This course is concerned with the isolation, identification, culture, nutrition, sterilization and chemotherapeutic procedures employed in studying bacteria. Prerequisites: Biology 111, 112, or 105, 106 and 1 year General Chemistry (121, 122) or equivalents. Lecture: 2 credits; Laboratory: 2 credits.

MCRB 250. General Bacteriology. (3) Consideration of identification, culture, sterilization and disinfectant procedures employed in studying certain microorganisms. Open to majors in Home Economics, Health and Physical Education. Prerequisites: Biology III or Biology 105, or Chemistry 121, 122. Lecture: 2 credits; Laboratory: 1 credit. (e)

MCRB 310. Introduction to Microbial Physiology. (4) This course outlines some of the salient features in the physiology of microorganisms. Selected examples of the metabolism of carbohydrates, liquids and nitrogen containing compounds will be considered as a basis for further understanding of biologic phenomena. Prerequisites: Microbiology 240 and Organic Chemistry 311, concurrently, or equivalents. Lecture: 2 credits: Laboratory: 2 credits.

MCRB 410. Pathogenic Microorganisms. (4) This course surveys some of the important features of host-parasite interaction. Characteristics of the organism, host hypersensitivity, natural and acquired immunity will be considered as contributing factors toward this interaction. Modern preventive methods will be emphasized. Prerequisite: Microbiology 240. Lecture: 2 credits; Laboratory: 2 credits.

MCRB 420. Immunology and Serology. (4) Theories of immunity, training in serological methods and procedures for immunization. Prerequisites: Microbiology 240 and 410. Lecture: 2 credits; Laboratory: 2 credits. (e)

MCRB 430. Virology. (4) Survey of bacterial, plant, and animal viruses with emphasis on their infectious cycles. Prerequisite: MCRB 240. Lecture: 2 credits; Laboratory: 2 credits. (e)

ZOOLOGY (ZOO)

ZOO 201-02. Human Anatomy and Physiology. (4-4) The fundamentals of the structure, function and organization of the organ-system of man. These courses should be taken in sequence. Lecture: 2 credits; Laboratory: 2 credits. (e)

ZOO 330. Comparative Anatomy. (4) The comparative anatomy and evolution of the organ systems of chordate animals. Prerequisites: Biology 111, 112 or Biology 105, 106. Lecture: 2 credits; Laboratory: 2 credits.

ZOO 340. Mammalian Physiology. (4) Consideration of the dynamic interactions and integrations of mammalian organ systems. Special emphasis is placed upon recent advances in methodology and new concepts in physiology and contributing sciences. Prerequisites: Biology 111, 112 or Biology 105, 106 and Chemistry 121, 122 or equivalents. Lecture: 2 credits; Laboratory: 2 credits. (e)

ZOO 350. Ornithology. (4) A study of the natural history of local birds. Prerequisites: Biology 111, 112 or Biology 105, 106. Lecture: 2 credits; Laboratory or field Periods: 2 credits. (e)

ZOO 400. Invertebrate Zoology. (4) This course is a study of the morphology, physiology, taxonomy and life histories of the invertebrates. Emphasis is placed on the systematic

developments of invertebrate types. Prerequisites: Biology 111, 112 or Biology 105, 106. Lecture: 2 credits: Laboratory: 2 credits. (e)

ZOO 410. Field Zoology. (4) Selected groups of animals studied. Methods of collecting, classifying and preserving will be emphasized. Prerequisites: Biology 111, 112 or Biology 105, 106. Lecture: 2 credits; Laboratory or field periods: 2 credits. (e)

ZOO 420. Herpetology. (4) Classification, distribution, life histories, collections and identification of amphibians and reptiles, primarily of local species. Prerequisites: Biology 111, 112 or Biology 105, 106. Lecture: 2 credits; Laboratory or field periods: 2 credits. (e)

ZOO 430. Embryology. (4) A general consideration of gametogenesis, fertilization and clevage in animals and the early development of Echinoderms, Protochordates and selected vertebrates with emphasis on early development of the chick. Prerequisites: Zoology 330 is strongly recommended. Lecture: 2 credits; Laboratory: 2 credits.

ZOO 440. Introduction to Parasitology. (4) Introduces the student to animal parasites and their methods of entering the body of man and mammals. The several types of host-parasite relationships are surveyed, with emphasis on the effects of parasites on or within the hosts. Immunogenic responses by the host to parasitism are reviewed and a history of this discipline along with past and present contributors enlightens students of parasitology as an applied and—or basic science in biology. Prerequisites: Biology 111, 112 or Biology 105, 106. Lecture: 2 credits; Laboratory: 2 credits. (e)

ZOO 450. Histology. (4) Study of animal tissues. Prerequisites: Biology 111, 112, or Biology 105, 106. Lecture: 2 credits; Laboratory: 2 credits. (e)

ZOO 460. Endocrinology. (4) The function of vertebrate hormones with emphasis on those concerned in the physiology of reproduction. Techniques used in small animal surgery in endocrine research. Prerequisites: Zoology 430. Lecture: 2 credits; Laboratory: 2 credits. (e)

ZOO 470-71. Physiology and Pathophysiology. (4-4) A closely integrated series of lectures and laboratory demonstrations which emphasize human physiology and pathophysiology. Physiology of the nervous system, blood, circulation, respiration, and special senses is considered as is the basic and applied physiology of the digestive, excretory, and endocrine systems. Mechanisms of integration of various systems are emphasized. Must be taken in sequence. Prerequisites: ZOO 202 and either Chem. 221 or 311. Lecture: 3 credits; Laboratory: 1 credit. (e)

SCIENCE (SCI) INTERDISCIPLINARY COURSES

SCI 121-22. Introduction to Bio-Physical Sciences. (3-3) An interdisciplinary course involving the principles of mathematics, chemistry, physics and biology. The objective of the course is to integrate the applicable areas as they are related to the living organisms. Two lecture periods and one laboratory (2 hours) per week.

SCI 481-82. Contemporary Problems in Ecology. (3-3) A study of some of the contemporary problems constituting our enviornmental crisis; the hazards comprising such problems; and the complexity affecting their resolutions.

SCI 400. Biomedical Concepts. (2) This course is designed to provide a sound understanding of biomedical concepts as related to biology, chemistry, mathematics and physics. Prerequisites: Biology 111-12, Chemistry 311 and Physics 211 or their equivalents. (e)

SCI 401-02. Fundamentals of Medical Science I, II. (3-3) Disease processes affecting the human body, studies through an intergrated approach to specific disease entities. Required of all MRA majors. Prerequisites: MRA 301, 302; MCRB 240; ZOO 201-02 or their equivalents. (e)

NATURAL SCIENCE COURSES OFFERED AT GULF COAST RESEARCH LABORATORY

By affiliation agreement* with the Gulf Coast Research Laboratory, Ocean Springs, Mississippi, the following courses are listed which may be taken for resident credit by TSU students:

Zoology 241	Introduction to Marine Zoology (4)
Biology 431	Basic Techniques in Marine Sciene for Teachers (3)
Biology 445	Special Problems in Marine Science (1-3)
Botany 470	Marine Botany (4)
Biology 475	Salt Marsh Ecology (4)
Microbiology 440	Marine Microbiology (5)
Zoology 490	Marine Invertebrate Zoology (6)
Zoology 445	Parasites of Marine Animals (6)
Zoology 455	Marine Vertebrate Zoology and Ichthyology (6)
Biology 485	Special Problems in Advanced Histology (3-6)
Biology 495	Marine Ecology (5)
Zoology 495	Marine Fisheries Management (4)
Zoology 435	Marine Aquaculture (6)
Chemistry 460	Marine Chemistry (6)
Geology 468	Physical Marine Geology (3)
Geology 469	Chemical Marine Geology

Complete course descriptions and registration forms for courses offered at the Gulf Coast Research Laboratory may be obtained by contacting the Biology Chairman.

*Subject to negotiation of agreement for 1979-80 year.

DEPARTMENT OF CHEMISTRY

Dr. Haynes (Head)

The purpose of the Department of Chemistry is the preservation, interpretation, dissemination, and advancement of chemical ideas and knowledge. Thus, the principle objectives of the Department of Chemistry are (1) to instruct students in the basic principles and techniques of the various branches of chemistry, (2) to educate the general public as well as students in other areas of the importance of chemistry to the quality of the environment and everyday living, (3) to engage in research and publication of new scientific information.

Educational goals toward which the chemistry majors are expected to strive before their graduation are mastery of the basic concepts and

techniques of the fields of analytical, inorganic, organic, physical, biochemistry, and proficiency in searching professional literature.

The Department of Chemistry offers Bachelor of Science and Master of Science degrees in chemistry. The chemistry curriculum is designed to provide (1) a collegiate major in chemistry which satisfies the criteria generally adopted by leading colleges and universities as well as the American Chemical Society, (2) meaningful service courses to other departments in the University, and (3) the preparation of prospective science teachers for secondary schools, and (4) to implement a program of training for students who wish to lay a foundation for graduate study in chemistry, medicine, veterinary medicine, molecular biology, agricultural chemistry, or nutrition, (5) to prepare students for employment in laboratories, hospitals, pharmaceutical and food processing companies, and other industries that employ technically trained staff for control or research work, and (6) to offer courses for students in the several departments of the University whose programs of study require such training. The succes in realizing the objectives is best reflected by the success of the students of the Department in being accepted in graduate and professional schools and their success in positions with major companies throughout the country.

Program for the Professional Chemistry Major

A professional chemistry major consists of a minimum of 53 semester hours of chemistry, 39 of which must be in 300 and 400 level courses. These credits may be accumulated through pursuing the following courses.

Chemistry	181H-182H	General	8 sem. hrs.
Chemistry	311 -312	Organic	10 sem. hrs.
Chemistry	321 -322	Physical	10 sem. hrs.
Chemistry	431 -432	Analytical	10 sem. hrs.
Chemistry	450	Senior Project	2 sem. hrs.
Chemistry	410	Chemical Bibliography	2 sem. hrs.
Chemistry	491 -492	Seminar	2 sem. hrs.
Chemistry	420	Inorganic	3 sem. hrs.
Chemistry		Electives	6 sem. hrs.
			Total Hours Chemistry 53 sem. hrs.

For a minor in Chemistry

Chemistry	121-122	General 8 sem. hrs.
Chemistry	311-312	Organic 10 sem. hrs.
Chemistry	431	Analytical 10 sem. hrs.
		Total Hours Chemistry 28 sem. hrs.

CURRICULUM FOR A MAJOR IN CHEMISTRY

(PROFESSIONAL EMPHASIS)

FRESHMAN YEAR	Semester Hours I	II
CHM 181H-2H	3	3
CHM 181HL-2HL	1	1
ENG 101-2	3	3
HIST 201-2	3	3
MATH 161-2	4	4
SOC 211		3
PE or AIR SCI	1	
	15	17

SOPHOMORE YEAR	Semester Hours I	II
CHM 311-2	3	3
CHM 311L-2L	2	2
MATH 261-2	4	4
PHYS 211-2	4	4
ENG 211-2	3	3
PE or AIR SCI	1	1
	17	17

JUNIOR YEAR	Semester Hours I	II
CHM 321-2	3	3
CHM 321L-2L	2	2
ART 133	2	
MUS 131		2
COM SCI	3	3
PE or AIR SCI	1	
Electives (300-400 Level)	6	6
	17	16

SENIOR YEAR	Semester Hours I	II
CHM 431-2	3	3
CHM 431L-2L	2	2
CHM 450 (Senior Proj.)	3	
CHM 410	2	
CHM 491-2	1	1
COM SCI	3	3
Electives (300-400 Level)	3	7
	17	16

Total Hours on 300-400 Level	63
ENG	12
MATH	16
SOC SCI: HIST	6 Hrs.
SOC 211	3 Hrs.
One SOC Elect.	3 Hrs.

AREAS OF SPECIALIZATION

Inorganic Chemistry

Physical Chemistry

Organic Chemistry

Analytical Chemistry

Biochemistry

1. Requires on ACT Math scores of 15 or better; otherwise Math 111-2 is a prerequisite.
2. Students planning to enter the Biochemical Emphasis, Medical Technology or Medical Professional School may substitute Biology 111-2.
3. German or Russian may be substituted. (300-400 level)

CHEMISTRY WITH BIOCHEMICAL EMPHASIS

JUNIOR YEARS	Semester Hours I	II
BCHM 341-2	3	3
BCHM 341L-2L	2	2
ART 133	2	
MUS 131		2
MICRO 240	3	
MICRO 240L	2	
CHM 310		3
CHM 310L		2
PE 20-50 or AIR SCI 251-2	1	
Electives (300-400 Level)	3	4
	16	16

SENIOR YEAR	Semester Hours I	II
CHM 321	3	
CHM 321L	2	
CHM 450	3	
CHM 410	2	
CHM 491-2	1	1
BCHM 470	3	
BCHM 470L	2	
Electives (300-400 Level)		17
	16	18

CURRICULUM FOR MAJOR IN CHEMISTRY (WITH TEACHER CERTIFICATION)

FRESHMAN YEAR	Semester Hours I	II
ENG 101-2	3	3
HIST 201-2	3	3
CHM 181H-2H	3	3
CHM 181HL-2HL	1	1
MATH 161-2	4	4
PE 11-12 or AIR SCI 151-2	1	1
	15	15

SOPHOMORE YEAR	Semester Hours I	II
ENG 211-2	3	3
CHM 311-2	3	3
CHM 311L-2L	2	2
GER or FR 101-2	4	4
ED 201; PSY 242	3	3
PE 11-12 or AIR SCI 251-2	1	1
	16	16

JUNIOR YEAR	Semester Hours I	II
ED 301, 463	3	3
GER or FR 201-2	3	3
CHM 321-2	3	3
CHM 321L-2L	2	2
PHY 211-2	4	4
HUM Electives (from two fields) 300-400 Level	2	3
	17	18

SENIOR	Semester Hours I	II
CHM 491-2	1	1
CHM 450	2	
PSY 312; ED 491	3	3
ED 371		3
ED 310		2
ED 387, 472	3	9
SOC 300	3	
ED 465	3	
HLTH (300-400 Level)	2	
	17	18

DEPARTMENT OF CHEMISTRY

Course Offerings

Chemistry (Chm.)

Chm. 100 and 100L (3 + 1). Basic Chemistry—A study of the fundamentals of chemistry and their application to problems of biological nature. Offered for non-science students only. Three lectures and one three-hour laboratory per week.

Chm. 121-2 and 121L-2L (3–3 + 1–1). Introduction to Chemical principles. Lectures deal with the basic theories of Chemistry; atomic structure, kinetic theory, chemical

stoichiometry, the chemical bond, oxidation-reductation solutions, chemical equilibrium. Laboratory during the second semester is devoted to qualitative analysis including cation and anion analysis. A good mathematical background is necessary.

Chm. 181H-2H and 181HL-2HL (3–3 + 1–1). Introduction to Chemical Principles. For chemistry majors and honor students only.

Chm. 131-2 and 131L-2L (3–3 + 1–1). General Chemistry. Chemistry for non-science majors. The particle nature of matter, substances and chemical change, kinetic theory and selected topics from the fields of inorganic chemistry, bio-chemistry, nuclear-chemistry, and environmental chemistry. Must be taken insequence.

Chm. 310 (3). Analytical Chemistry. Chemical Equilibrium Acid-base equilibria in water. Solubility, complexions, stoichiometry, volumetric titrations, red-ox equilibria and electrochemistry including activity effects and electronanalytical chemistry. Prerequisites: Chm. 122.

Chm. 310L (2). Analytical Chemistry Laboratory. Chemical Equilibrium Laboratory. Application of volumetric titrations, elementary absorption, and potentiometric methods with emphasis upon determination of parameters and various equilibrium systems. Coreq: 3310.

Chm. 311-2 and 311L-2L (3–3 + 2 –2). Organic Chemistry. Chemistry 121-2 are prerequisites, with a minimum grade of "C" in each course. A systematic study of the source, physical properties, and chemical behavior of aliphatic, aromatic, and heterocyclic compounds of carbon. Three lectures and two three-hour laboratory periods. Also for Biology Majors.

Chm. 321-2 and 321L-2L (3–3 + 2–2). Introduction to Physical Chemistry. Prerequisites: Math 261-2, Phys. 211-2, or permission of instructor. Properties of ideal and real gases, kinetic molecular theory of gases, chemical thermodynamics, chemical equilibrium, solutions of electrolytes and non-electrolytes, electrochemistry, liquid and solid states. For the second semester: Rate and mechanism of chemical reaction, introductory quantum mechanics, atomic and molecular structure, theory and nature of chemical bonding, molecular spectroscopy and photochemistry. Three lectures, one four-hour laboratory and one two-hour problem session a week.

Chm. 331-2 (3–3). Fundamentals of Physical Chemistry. A non-calculus survey of physical chemistry. Includes properties of gases, liquids, and solids: elementary thermodynamics, kinetics, and molecular structure. Prerequisite: 212 and Math 261. Not available for students having credit for 321-322.

Chm. 331L-2L (1–1). Fundamentals of Physical Chemistry Laboratory. Fundamental of gases, liquids, chemical equilibrium, reaction kinetics, and solutions. Corequisite: 331-2. Not available for students having credit for 321-2.

Chm. 341-2 (3–3). Introduction to Polymer Science. Organic Chemical reactions leading to high polymers; physical properties and physical behavior or polymers; polymer processing and end uses. Prereq: Chm. 122, Math 261, and Phys. 222 or permission of instructor.

Chm. 360 and 360L (3+2). Organic Chemistry Survey. Chemistry 121-2 are prerequisites. Important classes of organic compounds are presented. Emphasis is placed upon the study fo hydrocarbons and their principal derivatives: carbohydrates, proteins, fats and oils, vitamins and dyes. Designed for majors in Agriculture, Home Economics, and Health. Three lectures and one two-hour laboratory periods.

Chm. 400 (3). Special Topics. Students or faculty generated course. Scope of subject matter to be determined by students and instructor Prerequisite: Permission of the instructor.

Chm. 410 (2). Chemical Bibliography. Prerequisites: Chemistry 311-2 and a reading knowledge of German. A study of how to use the chemical journals, reference books and other sources of chemical information. A systematic search in the chemical literature for information on several compounds and topics will be included. Two conferences a week.

Chm. 420 (3). Inorganic Chemistry. Deals with the principles and modern theories of inorganic chemistry including atomic and molecular structure. Must have had or be taking Chm. 321-2. Offered in alternative years during the Fall Semester. Three lectures per week. Required of all Chemistry majors. Open to other interested students with the consent of the Professor in charge of the course.

Chm. 431-2 and 431L-2L (3–3 + 2–2). Analytical Chemistry. A sequential course in Analytical Chemistry, principles and application of analytical instrumentation, quantitative electrical and optical methods of analysis. Prerequisites Chm. 121-2, 221-2, 321-2, one year of college physics and must have had or be taking calculus. Students whose curriculum calls for analytical chemistry but who are not majoring in chemistry, should consult with the Professor in charge of the course.

Chm. 440 (3). Organic Reaction Mechanisms. Prereq: 311-2, 311L-2L.

Chm. 450 (2). Senior Project. Required of all seniors. A special laboratory investigation is carried out under the direction of the instructor and the resluts are written up scientifically. Required of candidates for the bachelor's degree. Hours arranged.

Chm. 460 and 460L (3 + 2). Organic Qualitative Analysis. Chemistry 311-2, and 410 are prerequisites. A systematic study of the solubility and class reactions of the principal classes of organic compounds. It includes also identification of pure organic compounds and mixtures. Two lectures and two three-hour laboratory periods.

Chm. 481-2 (3–3). Introduction to Quantum Chemistry. Introduction to fundamental principles of quantum chemistry including methods of calculation. Application to atomic, molecular, and nuclear chemistry and physics. Prerequisite: 322.

Chm. 491-2 (1–1). Chemistry Seminar. Required of all seniors.

BIOCHEMISTRY (Bchm.)

Bchm. 310 (3). Introductory Analytical Chemistry. Deals with certain aspects of quantitative chemistry as applied to agricultural and food analysis. Prerequisites: Chem. 121-2. Required of majors in plant science. Three lecture periods per week.

Bchm. 310L. (2). Introductory Analytical Chemistry Laboratory. Prerequisites: Chm. 121-2. Four hours per week.

Bchm. 320 (3). Physiological Chemistry. Presents the fundamentals of human physiological chemistry. Required of majors in foods and nutrition. Prerequisites: Chm. 360. Three lecture and recitation periods per week.

Bchm. 320L (2). Physiological Chemistry Laboratory. Prerequisites: Chm. 360. Four hours per week.

Bchm. 341-2 (3-3). General Biochemistry. A comprehensive study of the chemistry and biochemsitry of carbohydrates, lipids, proteins, enzymes, vitamins and minerals important in the metabolism and nutrition of animals and plants. Required of biochemistry students. Prerequisites: Chm. 121-2, 311-2. Three lecture periods per week.

Bchm. 341L-2L (2-2). General Biochemistry Laboratory. Prerequisites: Chm. 121-2 and 311-2. Four hours per week.

Bchm. 451-2 (3-3). Cellular and Comparative Biochemistry. Electrolyte behavior and biological functions; catabolism and energy capture; synthetic metabolism; nuclei and function, protein synthesis and biochemical proceses. Prerequisite: Chm. 311-2 and an introductory course in biology (such as Biology 106 or 112 or equivalent).

Bchm. 451L-2L. (2-2). Cellular and Comparative Biochemistry Laboratory. Laboratory course to be taken concurrently. Prerequisite: Chm. 311-2, 311L-2L and Chm. 310.

Bchm. 470 (3). Biochemical Analysis. Designed to familiarize the student with the principles and practices involved in the analysis of biological materials. Prerequisites: Chm. 121-2 and 311-2; and Bchm. 341-2. Three lecture periods per week.

Bchm. 470L (2). Biochemical Analysis Laboratory. Prerequisites: Chm. 121-2, 311-3, and Bchm. 341-2. Four hours per week.

Science for Elementary Education Teachers.
Sci. 301-2 and 301L-2L (3-3+0-0). Science for the Elementary School Teachers. Deals with discussions, planning and experimenting in the physical, biological and earth sciences with particular emphasis on activities and experiences appropriate to youngsters in the elementary school. Two one-hour lectures and one two-hour laboratory per week each semester.

Department of Communication

DR. WILLIAMS (HEAD)

The Department of Communication, in addition to the general purpose of offering the student an overall view of the importance of the communication arts and sciences in contemporary society, has the following objectives:

1. To prepare students to become teachers of speech communication and drama in high schools and colleges,

2. To prepare drama majors for careers in educational, community, and professional theatre,

3. To prepare students for careers as speech pathologists, audiologists, and language specialists,

4. To prepare students for careers in broadcasting and journalism,

5. To prepare students for allied occupations such as public relations, sales, communication consulting, civil service, personnel work and counseling,

6. To provide assistance to students preparing for such professions as law and the ministry,

7. To prepare students for careers in parabroadcasting—business, industrial, educational and medical video communications.

8. To improve, by providing service courses, the speech proficiency of the student population in general,

9. To provide cultural enrichment for the University and community through extra-curricular activities in dramatics and forensics.

10. To provide clinical service for students and citizens of the community who have speech, hearing, and language disorders.

The Department of Communication offers programs leading to the degrees of Bachelor of Arts and Bachelor of Science. There are two majors: (1) Speech Communication and Theatre and (2) Speech Pathology and Audiology. The program for a major in Speech Communication and Theatre also offers the options of a concentration in speech communication, in theatre, or in mass communication (radio, television, and journalism). A minor in Speech Communication and Theatre is also offered.

The programs for the Bachelor of Science and the Bachelor of Arts degrees require a minimum of 132 semester hours with 60 of these being on the 300-400 level. The Bachelor of Science degree with teacher certification requires, in addition to the General Education Core, a minimum of 24 semester hours in the major area and 33 semester hours in the professional core. For the Bachelor of Arts degree with teacher certification the additional requirement is 8 to 14 semester hours in a modern foreign language.

The Bachelor of Science program for the non-teaching major requires, in addition to the General Education Core and the minimum 24 semester hours in the major area, an additional 18 semester hours in that major area. The requirement for the Bachelor of Arts degree without certification is an additional 8 to 14 semester hours in a modern foreign language.

For the major in Speech Pathology and Audiology who is seeking teacher certification 75 clock hours of Supervised Clinical practicum in the University Clinic are required. The major in the noncertification program must accumulate 125 clock hours of Supervised Clinical Practicum.

The Department offers a minor in Speech Communication and Theatre, requiring 18 semester hours which may be distributed within each optional area. A minor with a concentration in speech communication includes Spch 210, 220 or 230, 320 or 420, 354, 360, 322 or 301-302. A minor with a concentration in theatre includes Thea 240, 301, 341, 400, 431, and an elective. A minor with a concentration in speech communication and theatre includes Spch 210, 354, 360, Thea 340, 303, 341. The requirements for a minor in mass communication includes Spch 200, 360, 364, 440, Jour 301, 302, 304.

Majors in the Department of Communication are encouraged to pursue a second major or a minor in such fields as English, Business, History, Government and Public Affairs, Modern Foreign Languages, Sociology, and Psychology.

The Department in its effort to encourage participation in national professional organizations has chapters of Theta Alpha Phi: National Theatre Honors Fraternity, and Phi Kappa Delta: National Forensics Fraternity.

Students excelling in the various departmental activities are given awards by the T.E. Poag Players Guild, Theta Alpha Phi, and the Children's Theatre. In addition, the Jamye C. Williams Communication-Award is given annually to a graduating senior who has maintained a a high academic average, contributed to the extracurricular program, and demonstrated high standards of personal conduct.

The Department has one scholarship which is given annually by the Life and Casualty Insurance Company to a student of the Nashville area who excels academically and who plans a career in broadcasting.

Curriculum for a Bachelor of Arts Degree in Speech Communication and Theatre

This program follows the Bachelor of Science Program with the exception of the foreign language requirement as specified in the University Requirements for the Bachelor of Arts Degree. The required number of hours in a foreign language should be taken in place of electives.

CURRICULUM FOR A MAJOR IN SPEECH COMMUNICATION AND THEATRE
BACHELOR OF SCIENCE DEGREE PROGRAM
(With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
THEA 111, 112	2	2
ENG 101, 102	3	3
SCI 121, 122	3	3
SPCH 200; MATH 111	2	4
HIST 201, 202	3	3
PE or AFROTC	1	1
SPCH 101	1	
	15	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
ED 201, PSY 242	3	3
HLTH 151, THEA 120	2	2
ART 133 or MUS 131		2
THEA 240; GPA 221	3	3
SPCH 210; SPCH 220	3	3
PE or AFROTC	1	1
Elective (300-400 level)	2	
	17	17

JUNIOR YEAR	Credit Hours Fall	Spring
ED 301, 387	3	3
PSY 312		3
SPCH 354, 360	3	3
THEA 301, 303	3	3
THEA 341	3	
SPCH 434		2
THEA 351 or 352	3	
Electives (300-400 level)	3	3
	18	17

SENIOR YEAR	Credit Hours Fall	Spring
SPCH 420	3	
THEA 400	3	
SPCH 450	3	
SPCH 371		3
ED 491		3
ED 472		9
ED 465	3	
Electives (300-400 levels)	6	
	18	15

CURRICULUM FOR A MAJOR IN SPEECH COMMUNICATION AND THEATRE
BACHELOR OF SCIENCE DEGREE PROGRAM
(Without Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
THEA 111, 112	2	2
ENG 101, 102	3	3
SCI 121, 122	3	3
SPCH 200; MATH 111	2	4
HIST 201, 202	3	3
SPCH 101	1	
PE or AFROTC	1	1
	15	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
SPCH 210, 220	3	3
THEA 240; GPA 221	3	3
THEA 120, ART 133 or MUS 131	2	2
JOUR 301; SPCH 375	3	3
PE or AFROTC	1	1
Electives	3	3
	18	18

JUNIOR YEAR	Credit Hours Fall	Spring
SPCH 320, 354	3	3
SPCH 322, 356	3	2
SPCH 362, 324	3	2
THEA 401, 403	3	3
THEA 341, 342 or 343	3	3
THEA 351, 352	3	3
	18	16

SENIOR YEAR	Credit Hours Fall	Spring
SPCH 420, 434	3	2
THEA 400, 402	3	3
THEA 431, SPCH 450	3	3
Electives (300-400 level)	6	9
	15	17

NOTE: For the junior and senior years. Courses listed above may be replaced by courses for one of the following courses for optional areas of emphasis.

OPTION 2—THEATRE EMPHASIS

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
THEA 303, 304	3	3	THEA 400, 402	3	3
THEA 401, 403	3	3	THEA 431, 422	3	3
THEA 351, 352	3	3	SPCH 450	3	
THEA 342, SPCH 354	3	3	Electives (300-400 level)	6	9
SPCH 356		2		15	15
Electives (300-400 level)	6	3			
	18	17			

OPTION 1—SPEECH COMMUNICATION EMPHASIS

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
SPCH 320, 354	3	3	SPCH 420, 434	3	2
SPCH 322, 324	3	2	SPCH 430, 448	3	3
SPCH 362, 364	3	3	SPCH 450	3	
Electives (300-400 level)	9	9	Electives (300-400 level)	6	9
	18	17		15	15

OPTION 3—MASS COMMUNICATION EMPHASIS

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
SPCH 360, 362	3	3	SPCH 430, 438	3	3
SPCH 370, or JOUR 304	3		SPCH 436 or JOUR 440	3	
SPCH 448, 452	3	3	SPCH 442, 444	3	3
SPCH 440 or JOUR 405		3	SPCH 450	3	
THEA 352 or JOUR 420	3		HIST 373	3	
THEA 304 or JOUR 400		3	Electives (300-400 level)		9
GPA 315; HIST 373	3	3		15	15
BA 431, ENG 311	3	3			
	18	18			

Curriculum for a Major in Speech Pathology and Audiology Bachelor of Science Degree Program

Speech Pathology and Audiology majors are required to accumulate a total of 40 hours in the specialty area including the following courses:

Spth—200 Observation
Spth—250 Speech and Hearing Science
Spth—260 Phonetics
Spth—270 Phonetics Lab
Spth—280 Introduction to Speech and Hearing
Spth—300 Clinical Practicum
Spth—372 Identification and Appraisal of Speech and Hearing Problems.

Spth—373 Aural Rehabilitation
Spth—375 Voice and Diction
Spth—400 Supervised Clinical Practicum
Spth—450 Senior Project
Spth—460 Organic Speech Disorders
Spth—470 Stuttering and Allied Disorders
Spth—471 Language and Speech Development of Children
Spth—474 Basic Audiology
Spth—476 Language Disorders in Children

A minor is not required for Speech Pathology and Audiology majors but students are encouraged to take electives in other programs with habilitation components, such as Special Education, Psychology, Social Welfare and Sociology.

CURRICULUM FOR A MAJOR IN SPEECH PATHOLOGY AND AUDIOLOGY (WITH TEACHER CERTIFICATION)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
HIST 201, 202	3	3
ZOO 201, 202	4	4
MATH 111, HLTH 151	4	2
SPCH 101	1	
PE 11, PE 12	1	1
THEA 120; ART 133; MUS 131 or PHIL 323		2
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
ED 201; GPA 221	3	3
PSY 242; SPTH 290	3	3
SPTH 250, SPTH 200	3	1
SPTH 260; SPCH 375	3	3
SPTH 280; SPCH 220	2	3
PE PE	1	1
Elective		1
	18	18

JUNIOR YEAR	Credit Hours Fall	Spring
ED 301, 465	3	3
ED 387, 467	3	3
PSY 312; SPTH 373	3	3
SPTH 372, 474	3	3
SPTH 471, 476	3	3
SPTH 300a, b	1	1
Electives	2	
	18	16

SENIOR YEAR	Credit Hours Fall	Spring
SPTH 450, 371	3	3
SPTH 460; ED 324	3	3
SPTH 470; ED 472	3	9
SPTH 400a	1	
SOC 300 or PSY 311	3	
ED 466	3	
	16	15

Students seeking certification in Teacher Education are required to accumulate 75 clock hours of Supervised Clinical Practicum (Spth 300, Spth 400) in the University Clinic before they are allowed to engage in student teaching during the senior year.

All students entering the department will be screened to determine if they have disorders of communication. Students who are found to have such disorders will be required to enroll in the proper therapeutic program to correct their defects. Students are urged therefore to begin therapy during their freshman year, or as early thereafter as possible. No student will be allowed to engage in student teaching until defective speech, hearing and language problems have been corrected or improved satisfactorily.

Students in this department are reminded that they are expected to show steady growths in the development of vocabulary skills, reading skills, speaking skills, and writing skills. Keep in mind that you are preparing to become specialists or professionals in Communication.

Students obtaining D or F grades in major subjects are required to repeat those courses to obtain C or better grades.

CURRICULUM FOR A MAJOR IN SPEECH PATHOLOGY AND AUDIOLOGY (WITHOUT TEACHER CERTIFICATION)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
HIST 201, 202	3	3
ZOO 201, 202	4	4
MATH 111; HLTH 151	4	2
SPCH 101	1	
PE 11, PE 12	1	1
THEA 120; ART 133; MUS 131 or PHIL 323		2
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
ED 201; GPA 221	3	3
PSY 242; SPTH 290	3	3
SPTH 250, SPTH 200	3	1
SPTH 260; SPCH 375	3	3
SPTH 280; SPCH 220	2	3
PE PE	1	1
	18	17

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
PSY 351	3		CD 332		2
SPTH 372, 474	3	3	ED 466		3
SPTH 373		3	SW 470		3
SPTH 471	3		SPTH 450	3	
SPTH 300a-b	1	1	SPTH 470	3	
SPTH 476		3	SPTH 460	3	
PSY 321	3		SPTH 400a, b	1	
PSY 323	3		Electives (300 or 400 level)	8	8
ED 465		3		18	16
ED 467		3			
	16	16			

Students who are not in the Teacher Education Program must accumulate 125 clock hours of Supervised Clinical Practicum (Spth 300, 400) in the University Clinic.

All students entering the department will be screened to determine if they have disorders of communication. Students who are found to have such disorders will be required to enroll in the proper therapeutic program to correct their defects. Students are urged therefore to begin therapy during their freshman year, or as early thereafter as possible. No student will be allowed to engage in student teaching until defective speech, hearing and language problems have been corrected or improved satisfactorily.

Students obtaining D or F grades in major subjects are required to repeat those courses to obtain C or better grades.

DEPARTMENT OF COMMUNICATION

COURSE OFFERINGS

SPEECH (SPCH)

SPCH 101. FRESHMAN ORIENTATION. (1) A course designed to orient freshmen to the various facets of college life, including academic advisement, educational and vocational planning, and personal adjustment.

200. Introduction to Mass Communication. (2) A survey of the mass media and their impact on the ideas, attitudes, and impressions of society.

210. Fundamentals of Speech Communication. (3) A study of the fundamentals relating to the various types of speech communication.

220. Public Speaking. (3) A study of the principles of speech composition and delivery with emphasis upon the preparing and presenting of the various forms of oral communication.

220 H. Honors Public Speaking. (3) Honors section of Spch 220.

230. Business and Professional Speech Communication. (3) Designed specifically for the student with neither a major nor minor in the field of speech. Emphasis is placed on the following speech situations: business interviews, conferences, reports, and similar types of business conversations.

320. Arugmentation and Debate. (3) A study of the principles and practices of argumentation, an analysis of propositions and evidence, brief making, and preparation and delivery of forensics, as well as participation in classroom discussions. Techniques governing round table, forum and panel discussions will be studied.

322. (Formerly Spch 420) Advanced Public Speaking. (3) A study of the standards of criticism and techniques involved in effective public address. Prerequisite: SPCH 220.

324. Parliamentary Procedure. (2) A study of the rules and techniques of parliamentary practices.

354. Oral Interpretation. (3) Introductory course to develop understanding of and appreciation for literature through the oral re-creation of poetry, prose, and drama. Recommended for prospective teachers of literature.

356. Choral Speaking. (2) Oral group interpretation of literature. Affords an opportunity for intensified and vital artistic expressions through the formation of a speaking choir. Values for both elementary and adult groups. Methods of conducting groups and selection of materials will be considered. (Class limited to 25.)

358 Readers Theatre. (3) Oral interpretation of dramatic texts. Prerequisite: SPCH 354.

360. Broadcasting in America. (3) Overview of the history, form, content, and social impact of American radio and television. Examples of contemporary broadcasting are analyzed in these terms.

362. Radio and Television Communication. (3) The course covers all types of non-dramatic broadcast performance. Practical application in a laboratory situation.

364. Radio and Television Production. (3) An introductory course dealing with the basic principles of formulating and producing radio and television programs. Practical application in a laboratory situation.

370. Radio and Television Writing. (3) A study of the techniques and methods used in writing radio and television scripts. Students will be required to write a number of scripts for various types of programs. Prerequisite: Spch 364 or consent of instructor.

371. Methods of Teaching Speech Communication and Theatre. (3) A methods course in the teaching of speech, theatre, and communication on the secondary level.

372. Communication Lab. (3) A practicum course involving radio production and broadcasting work at WTSU, the campus radio station. Students undertake a variety of broadcasting responsibilities under the supervision of the station manager. Prerequisites: Spch 364 and permission of instructor. May be taken twice for credit.

375. Communicative Skills. (3) A course to improve the students' communicative skills, verbal and written, preparing them for the professional world.

410. History of English Language. (3) Same as English 410.

420. Small Group Communication. (3) A course which focuses on communication in small groups, emphasizing the principles, practices, and patterns and utilizing them in practical situations (Formerly Spch 322)

430. Psychology of Speech Communication. (3) A study of basic psychological factors and their relation to the various types of communicative processes. The nature, origin, and purposes of speech are analyzed, as well as the development of language and speech in the individual.

434. Contemporary Black Speakers. (2) A study of selected speeches of contemporary black leaders who have contributed to and made an impact on American life. The speeches are analyzed according to the principles of rhetoric, based on Aristotelian standards. Prerequisite: Spch 210 or 220.

438. Broadcast Station Management. (3) Covers legal, social, programming and economic aspects of radio and television station management. Guest lectures by local station managers and department heads are an important feature of the course. Prerequisite: Spch 360 or permission of instructor.

440. Radio and TV Programming. (3) Television and radio programming are considered in terms of content, social impact and artistic merit. News, documentary, public affairs, talk shows, light entertainment, serious drama, and advertisements, as well as program schedules as a whole, are analyzed. Prerequisites: Spch 360 or permission of instructor.

442. Communication Internship. (3) Internships are cooperative programs between TSU and local media, in which students undertake various duties. Specific internships available change from semester to semester. May be taken three times for credit but no more than twice in the same area. Prerequisites: Introductory course in area related internship and/or permission of instructor.

444. Advanced Television Production. (3) Provides the student with experience in producing and directing television programs. Various aspects of production and direction are covered in greater depth. Prerequisite: Spch 360.

446. Radio and Television Advertising. (3) A study of the basic advertising techniques with emphasis on salesmanship in relation to the media. Prerequisite: Spch 360.

448. Principles of Public Relations. (3) A study of the development, scope, and roles of public relations in society.

449. Speech and Theatre for the Elementary Teacher. (3) The course is designed for the elementary teacher with a minimum of training and experience in speech communication and theatre. The focus is on activities of a practical nature the elementary teacher may utilize in the classroom. Representative topics include speech development and disorders, speech activities, oral interpretation, creative dramatics, and puppetry.

450. Senior Project. (3) Individual research or project.

452. Communication Law. (3) Law and regulation are analyzed in terms of the social, political and/or economic interests they were designed to protect, and in terms of their impact on the communication industry. First Amendment, right of privacy, communication ethics are considered. Prerequisite: Spch 360 or permission of instructor.

458. Advanced Public Relations. (3) Practical exercises in public relations, stressing campaigns, schedules, budgets, and media strategies. Prerequisite: Spch 448.

472. Observation and Student Teaching Public School. (9) (Same as Ed. 472)

480. Independent Study. (1-3) Individual study and research under faculty guidance. May be taken twice for credit.

DEPARTMENT OF COMMUNICATION

COURSE OFFERINGS

THEATRE (THEA)

111. Theatre Practice 1. (2) A course introducing the student to theatre technology, stage terms, building of scenery. Laboratory experience.

112. Theatre Practice 11. (2) A course dealing with such fundamentals as floor plans, perspective drawings, introduction to make-up. Continuation of theatre technology with laboratory experience.

120. Appreciation of Drama. (2) Introduction to dramatic principles through the study of major periods and representative plays from the Greek period to the present.

120 H. Honors Appeciation of Drama. (2) Honors section of Thea 120.

240. Elementary Acting. (3) Study and practice in the fundamentals of acting technique based on play and character analyses. The importance of voice, posture, gesture, and movement in theatrical expressiveness will be emphasized using speeches and short scenes from the world's best dramas.

THEA 303. Directing. (3) A course requiring the analyzying of scripts and the directing of one-act plays, with attention to casting, blocking, and rehearsal styles through practicum.

THEA 304. Playwriting. (3) A study of the theory and practice of writing one-act plays for the stage.

THEA 341. Children's Theatre. 1. Creative Dramatics. (3) Study of a process used to help drama students develop more sensitive characterizations and to make them more aware of such demands of a drama as structure, pace, mood, and tensions. The same process may be used as a teaching tool in other areas, such as the Language Arts Program in elementary and secondary schools. The course is taught in a laboratory situation.

THEA 342. Children's Theatre 11. Play Production (3) Fundamental principles of crew and committee work for a children's play are taught by the student's actual participation in some phase of the productions, such as cast member, crew member, or committee member, Cast members may include people from the third grade through graduate level.

THEA 343. Children's Theatre 111. Puppetry (2) Study of the process in producing a simple hand-puppet show, with the emphasis on a method of building the script from fairy tales or folk plays. This process can be valuable to teachers or park supervisors, as well as to drama students.

THEA 344. Drama Workshop 1. (1 or 2) Credit given for acting, crew, or committee work in a production. Admission by instructor permission.

THEA 351. Classical Drama. (3) Study of western world's masterpieces from Greeks to Restoration. Readings and reports.

352. Modern Drama. (3) Extensive study of world-famous plays from 1880's to the present day. Reading and reports.

400. Scene Design and Stagecraft. (3) Advanced scene design and advanced stagecraft. Construction of three-dimensional scenery required. Practicum with current productions.

401. History of Drama 1. (3) A course based on the development, literature, and staging practices of the theatre from the Egyptians to the Restoration Period. (Formerly Thea 301)

402. Stage Lighting and Stage Makeup. (3) Advanced make-up and lighting practicum in major productions and laboratory productions.

403. History of Drama II. (3) A course based on the development, literature, and staging practices of the threatre from the Restoration through the 19th century. (Formerly Thea 302)

422. Contemporary Black Drama. (2) A course based on the study of dramas by representative contemporary black playwrights.

431. Shakespeare. (3) Study of the principal plays of Shakespeare. (Same as English 431)

JOURNALISM (JOUR)

301. Survey of Journalism. (3) A practical course in journalism with emphasis upon the organization and function of daily and weekly newspapers, community publicity, school publications. Introduction to news writing.

302. News Writing. (3) Introduction to reporting techniques, with emphasis on news writing.

304. Advanced Reporting. (3) Practice in advanced newswriting with emphasis on news, features and beat reporting. Prerequisite: Jour 302.

306. Investigative Reporting. (3) Special problems and assignments in in-depth investigative reporting. Prerequisites: Jour 302 and 304.

308. Press Photography. (3) Experience in professional press photography. Basic darkroom techniques in developing, enlarging, and printing. Principles and procedures in using pictures as an editorial medium.

310. Mass Media Advertising and Audience. (3) Fundamentals of broadcast, print, and public relations advertising, promotion and sales, including market research, media buying, and campaigns.

312. Advertising Copy and Layout. (4) Ideas and their translation into persuasive words and pictures. Principles and techniques of copy and layouts. Types and functions of advertising. Prerequisite: Jour 302.

405. News Editing. (3) Editing copy, writing headlines, designing newspaper layout. Prerequisite: Jour 302.

410. Editorial Writing. (3) Critical analysis of structure and content of newspaper editorials; practice in writing editorials and columns. Prerequisite: Jour 405.

412. Advanced Advertising Copy and Layout. (3) Continuation of study in copy and layout with emphasis on creative projects.

420. Broadcast Journalism. (3) A course which deals with the preparation and production of news and documentaries for radio and television. Prerequisites: Jour 302 and Spch 364 or permission of instructor.

440. Feature Writing. (3) Instructions and practice in writing feature articles. Prerequisite: Jour 302 or permission of instructor.

442. Magazine Writing. (3) Study and practice in writing nonfiction articles for consumer or trade magazines. Analysis of current magazine markets and trends. Prerequisite: Jour 302 or permission of instructor. Jour 440 recommended.

452. Reviewing and criticism. (3) Instruction and practice in reviewing entertainment and the arts. Emphasis on film criticism and one or more of the following: theatre, literature, music, dance, art. Prerequisite: Jour 302.

454. Specialized Publications. (3) Business and industrial publications. Writing and editing for special interest newspapers and magazines in such fields as agriculture, business and industry, engineering, home economics and music. Prerequisite: Jour 302.

460. Special Topics. (3) Scope of subject matter to be determined by students and instructor. Prerequisites: Jour 302 and permission of instructor.

470. Campus Magazine Workshop. (3) Practical experience in writing, editing, photography and layout for campus publications. Prerequisite: Upper-division status in journalism; permission of instructor.

480. Independent Projects. (3) Supervised individual study, media experience or research. May be taken twice for credit.

SPEECH PATHOLOGY AND AUDIOLOGY (SPTH)

SPTH 200. Supervised Clinical Practicum. Observation. (1) (offered Spring Semester, Sophomore Year only). Orientation to the clinical practicum experience, identification of the major communication disorders, observation of a minimum of 25 hours of diagnostic and treatment procedures for the major communication disorders, introduction to clinical session planning professional report writing, and evaluation of clinical session effectiveness.

SPTH 250. Speech and Hearing Science. (3) Introduction to the anatomy and physiology of the speech and hearing mechanisms. An inspection of the acoustics and perception of speech as well as the psychophysics of hearing.

SPTH 260. Phonetics. (3) An introductory course in phonetics, the science of speech sounds which incudes acoustic, articulatory and perceptual analysis of speech sounds and transcription of American speech into the International Phonetics Alphabet. Students in Speech pathology and audiology are expected to acquire competency of the IPA in order to apply this knowledge in the clinical setting.

SPTH 270. Phonetics Lab. (1) A remedial self paced course for the individual who needs to improve his or her skills in phonetic transcription. This course follows SPTH 260.

SPTH 280. Introduction to Speech, Hearning and Language Disorders. (2) Introduces the student to the nature of and types of speech, hearing, and language problems, presenting overviews of various methods used in treated or managing these disorders.

SPTH 290. Clinical Methods in Articulation Disorders. (3) The description, diagnosis and remediation of articulation problems. Academics to be covered include a review of physical production of speech, normal developmental learning patterns of speech, various models of speech processes and theoretical bases for therapeutic procedures.

SPTH 300. Supervised Clinical Practicum (Junior Year—Prerequisite: A B SPTH 200) (1) Application of clinical session planning skills to first direct client—contact situation; management of one therapy case with close supervision; administration of basic diagnostic tests.

SPTH 371. Methods in Public School and Clinical Speech and Hearing Problems. (3) A methods course dealing with the observation, diagnosis, management, organization and therapy for various communication disorders. This course is primarily for the student who plans to enter the public school teacher certification program.

SPTH 372. Identification and Appraisal of Speech and Hearing Problems. (3) This course prepares the student to administer and interpret results of various diagnostic procedures used by professionals in the areas of speech pathology and audiology. The theoretical bases for the tests will be covered and basic skills in administration of the tests will be required.

SPTH 373. Aural Rehabilitation. (2) History, principles and theory of speech-reading and auditory training. Introduction to amplifying systems including hearing aids. Discussion of comprehensive care for the hearing impaired including psychological aspects and counseling.

SPTH 374. Introduction to Audiology. (3) An introduction to the anatomical and psychophysical aspects of hearing. Consideration of etiology and types of hearing loss. Theory and practice of techniques of auditory assessment with emphasis on hearing screening, pure tone and speech audiometry. Interpretation of test results.

SPTH 400. Supervised Clinical Practicum. (Senior year—Prerequisite SPTH 300) a b (1) Management of two or more therapy cases with supervision. Demonstration of increased skill in diagnosis, management, treatment, evaluation, and report writing skills.

SPTH 450. Senior Project. (3) An advanced composition or special project conducted by the graduating senior to acquire and demonstrate basic principles of research or investigation. The student is supervised by a member of the faculty.

SPTH 460. Organic Speech Disorders. (3) The nature of disorders of speech in which structural alteration is an important contributing cause. Includes the study of neurological disorders (cerebral palsy and aphasia), cleft palate, laryngectomy (esophageal speech), and disorders of voice in which structural alteration can be either demonstrated or inferred.

SPTH 470. Stuttering and Allied Disorders. (3) This course is designed to provide the student with the theoretical and historical background of stuttering and its allied disorders. The student will be exposed to traditional, current and new methods or techniques for diagnosing, treating, and counselling the stutterer and members of his family and environment.

SPTH 471. Language and Speech Development of Children. (3) This course is designed to familiarize the undergraduate student with the normal development of language and speech. Students must understand the nature and purposes of communication, the elements of the language system, the neurophysiological bases for language development, and the psychosocial perceptions about the development of speech and language.

SPTH 473. Special Problems in Speech Pathology or Audiology. (2) A seminar PARAGRAPH INCOMPLETE ON COPY

SPTH 474. Basic Audiology. (3) An introduction to the anatomical and psycho physical aspects of hearing. Consideration of etiology and types of hearing loss. Theory and practice of techniques of auditory assessment with emphasis on hearing screening, pure tone and speech audiometry. Interpretation of test results.

FIRST OF PARAGRAPH MISSING ON COPY. (3) The nature of language disturbances results from damage to the central nervous system, auditory impairments, environmental, social, and psychogenic influences. Managerial procedures are discussed and delineated, while numerous diagnostic tests of language are demonstrated.

DEPARTMENT OF CRIMINAL JUSTICE

DR MALLARD, (Head)

The Department of Criminal Justice offers a program leading to the degree of Bachelor of Science in correctional services. It focuses on the preparation of students to assume responsibile positions in agencies and institutions in the area of crime prevention and treatment. Through the research activities of faculty and students, the generation and dissemination of new knowledge is emphasized. The curriculum is designed to offer the student a substantial liberal arts education with emphasis on the behavorial sciences in general and criminal justice in particular. The present emphasis of the Department is in the area of corrections.

Any student admitted to undergraduate study at the University is eligible to major in Criminal Justice. In addition, special students and part-time in-service criminal justice personnel are welcomed. Special attention is given to those students already working in criminal justice agencies and institutions, and a broad range of courses is offered in the evening.

The Criminal Justice major requirements include a total of 44 semester hours with at least 33 semester hours at the 300-400 level. Included in this total is a field experience requirement of 12 semester hours for all majors. This course is optional for police officers who have completed basic training at a city or state police academy. No minor is required for criminal justice majors since 18 semester hours of psychology (including any 9 semester hours beyond general psychology except education-oriented courses) and 15 semester hours of sociology (including any 9 semester hours beyond introduction to sociology) are required of all majors.

All students must complete a 3 semester hour course in statistics. This course maybe taken in either the sociology or psychology department but does not count toward fulfillment of the substance sociology or psychology requirement.

All students will be expected to show evidence of satisfactory communications skills. Speaking or writing difficulties will necessitate extra compensatory work to eliminate the deficiency. In addition, all students will be required to complete successfully a course in criminal justice technical writing unless exempted by the head of the department of Criminal Justice.

Those wishing to minor in Criminal Justice will be required to complete successfully the introductory course (C.J. 200), the three core courses (201, 202, & 203), and any three approved upper level courses.

Since this department is relatively new at the University, all requirements are constantly under study and are subject to change from time to time. Students are therefore urged to keep in close contact with the Department through their advisers.

Career Opportunities In Criminal Justice

Criminal Justice majors enter a number of fields after graduation and have generally found a substantial demand for persons from their field of study. Many, of course, continue their studies in graduate school in the fields of law, psychology, social work, guidance and counseling, and criminal justice. Those students who begin working after graduation work in areas like law enforcement, either federal, state, or local, corrections as prison or juvenile institution counselors or adult or juvenile probation and parole officers, or as counselors and case workers in other areas related to criminal justice like drug and alcohol counseling and treatment or in half-way houses or juvenile foster homes.

CURRICULUM FOR A MAJOR IN CRIMINAL JUSTICE

FRESHMAN YEAR	Credit Hours Fall	Spring
MATH 111-112	4	3
ENG 101-102	3	3
SCI 121-122	3	3
HIST 201-202	3	3
PSY 201		3
HUM		2
CJ 200	3	
PE or AFROTC	1	1
	17	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
CJ 201-202	3	3
CJ 203		3
SOC 211, 330	3	3
ENG 211-212	3	3
PSY 202	3	
PSY 321	3	
HUM	2	2
ENG 310		3
PE or AFROTC	1	1
	18	18

JUNIOR YEAR	Credit Hours Fall	Spring
PSY 311 or SOC 300	3	
Elective		3
PSY 462	3	
PSY 341 or PSY 351	3	
SOC Elec. 300 level	3	3
SOC Elec. 300 level		3
CJ 300	3	
CJ Elec.		3
Elec. 300 level	3	3
	18	15

SENIOR YEAR	Credit Hours Fall	Spring
CJ 400	12	
CJ 450	3	
CJ Elec. 300-400 level		3
CJ Elec. 300-400 level		3
CJ Elec. 300-400 level		3
Elec. 300-400 level		3
Elec. 300-400 level		3
	15	15

COURSE OFFERINGS

Required Courses:

C.J. 200 Introduction to Criminal Justice Studies. (2) A preliminary examination of the entire criminal justice system. It emphasizes the understanding of basic concepts in police science, correctional services studies, the law and our legal system, and the elements of the scientific method and research techniques. It also functions as an introduction to the orientation and demands of the Tennessee State University Department of Criminal Justice.

C.J. 201 The American Police System. (3) An intensive study of findings and concepts in the area of police science. It covers law enforcement agencies, their procedures, and their problems. There is discussion of police-community relations and the FBI. History emphasized.

C.J. 202 The American Legal System. (3) An intensive study of the concepts and findings of research concerning the functioning and the structure of the American legal system. Its history and development are stressed, and its place in the entire criminal justice system is discussed. Elements of constitutional criminal law are introduced. Problems such as crowded dockets, plea bargaining, and bail are discussed.

C.J. 203 The American Correctional System. (3) An intensive study of the concepts and the findings of research in the area of corrections. In addition to consideration of the history and development of our correctional system, various techniques of correction are considered. The relationship of society and its norms to the operations of such systems will not be neglected.

C.J. 300 Research Methods. (3) An intensive survey of the various research methods appropriate to criminal justice studies. Special emphasis is given to the consideration of logic, design, and importance of research for correctional practitioners. In addition to the development of research skills, a purpose of this course is to develop the student's ability to read critically and to evaluate proposals for change.
Prerequisite: Math 111 and Psy 311 or Soc 300.

C.J. 400 Practicum. (12) This field experience consists of nearly full-time work in an appropriate institution or agency. It also involves intensive weekly discussions of problems that arise. Usual enrollment time is the student's senior year of study.

C.J. 450 Senior Project. (3) This course involves the preparation of an acceptable piece of research in the area of criminal justice. Prerequisite: C.J. 300.

Elective Courses

C.J. 301 Court Procedures and Mechanics. (3) An intensive study of courtroom case preparation, officer demeanor in court, effective presentation of evidence, trail procedure, use of written notes, officer appearance, and reaction to cross examination. "e"

C.J. 302 Constitutional Criminal Law. (3) Discussion of criminal law and procedure. Discussion of constitutional law as it impinges upon the legal system and the crime. Review of the relevant constitutional criminal cases before the various courts of Appeals and the United States Supreme Court. "e"

C.J. 303 Incidence of Crime. (3) Intensive discussion of the problems involved with crime statistics. Reviews **Uniform Crime Reports** and discusses relevant studies. Careful attention is devoted to the concept of unreported crime. "e"

C.J. 304 Criminal Typology. (3) Intensive discussion of the types of crimes. Consideration will be given to the various bases for the division of crimes into different categories. In addition, there will be an intensive examination of the specific research findings regarding crimes such as rape, robbery, murder, etc. "e"

C.J. 305 Deviance and Control. (3) A sociological discussion of the nature and role of deviance in a society. The various types of deviance will be considered and the nature of the relationship between deviance and the controlling and producing forces of society will be discussed. The relationship of deviance to crime will also be considered. "e"

C.J. 306 Introduction to the Philosophy of Law. (3) The philosophical development of the concept of law from the Pre-Greek era to the present (Babylonian, Greek, Roman, Germanic, and English systems) with emphasis on the more important philosophical ideas that have led to the present American legal system. "e"

C.J. 307 The Study of Law. (3) An in depth analysis of the Socratic method and Case method of legal studies and the organization and function of law schools. The course is geared toward and should be taken by only those students interested in pursuing a career in law. "e"

C.J. 308 Police Patrol and Services. (3) A study of the organization, administration, and supervision of patrol function. Responsibilities, techniques and methods of police and patrol will be discussed. Various services and public assistance offered by police organizations will be emphasized. "e"

C.J. 309 Traffic Investigation and Control. (3) A study of the development and need for traffic laws with primary attention focused upon the Uniform Motor Vehicle Code and Model Traffic Ordinances, including use and implementation. The maintenance and preparation of an adequate records system relative to traffic safety is examined. "e"

C.J. 310 Criminal Theory. (3) A survey of the various theories which have been advanced over the years about the causation of crime. Biological, sociological, psychological, and other theories will be examined along with relevant research findings. "e"

C.J. 311 Police Systems. (3) Course entails police systems established in America and abroad with emphasis on functions and activities, divisions and subdivisions with responsibilities and functions of each. Contrasts in structure, with a view of transitions, are discussed. "e"

C.J. 313 Fundamentals of Guidance Counseling. (3) An intensive introduction to counseling with special emphasis upon the nature and problems of correctional guidance counseling. Attention is devoted to the recognition and diagnosis of psychological problems as well as development of acceptable counseling methodology. "e"

C.J. 321 Juvenile Delinquency. (3) An introductory course but is rather an intensive study of the basic ideas of criminology as applied to juveniles. Attention is devoted to the development and impact of the juvenile court system. "e"

C.J. 322 Penal Institutions and Treatment Methods. (3) Intensive discussion of the methods of corrections involving prisons, jails, and other places of incarceration. Special emphasis will be placed on the inmate of community, treatment-custodial conflicts, and the utility (or lack of utility) of such institutions. "e"

C.J. 323 Community Based Treatment Methods. (3) Intensive study of probation, parole, Work-release, and other correctional methods which involve the inmate in his community rather than under incarceration. Merits and defects of such programs will be examined. "e"

C.J. 330 Police Administration I. (3) An examination of the principles of organization, administration, and functions of police departments. An evaluation of personnel policies, divisions, operations, command polices, ad evaluation of department as a whole. "e"

C.J. 331 Police Administration II. (3) A detailed study of the organization, administration and function of the police department. The designing of policies and a study of the arrangement within a department of specific operations and commands will be emphasized. "e"

C.J. 401 Independent Study. (3) For the student who shows exceptional promise, this course will consist of a research project or intensive reading program especially designed for the student. It is anticipated that only those students whose papers show reasonable probability of a new contribution to knowledge will be enrolled. "e"

C.J. 405 Introduction to Criminalistics. (3) A course designed to give the student a basic knowledge of crime scene protection, collection, preservation, and identification of evidence, including proper search, dusting latent prints, casting, fingerprint classification, use of the crime laboratory and crime detection and prosecution. "e"

C.J. 420 Seminar in Law Enforcement. (3) Review and synthesis of basic principles, practices and procedures. Visitation to operating police organization. Includes final preparation for employment in the law enforcement area. "e"

C.J. 421 Sociology of Law. (3) A discussion of the role of the legal system in our society. There will be consideration of the actual effcts of certain types of legislation. Other topics will include conflict resolution, the problem of a pluralistic society, the nature of the law, etc. "e"

C.J. 422 White Collar Crime. (3) A discussion of the incidence and problems with this major type of criminality. Topics will range from taxevasion and business crimes to political corruption and bribery. "e"

C.J. 430 Special Topics. (3) This course will be taught from time to time as faculty expertise and student interest warrant in such areas as police community relations, behavior modification in corrections, street law, etc. "e"

DEPARTMENT OF ENGLISH

Dr. Peters (Head)

The Department of English provides general education in composition, language and literature for all students enrolled in the university. In

addition, it offers more specialized education in these areas to students who plan to become teachers or specialists in the field. The department also offers a humanistic education in composition, language and literature to students who plan to enter one of the professions, such as law, medicine, businesss, writing or publishing, and wish to acquire a preliminary liberal education.

Four objectives have been established for students in the Department of English:

1. To acquire a command of the English language that enables the student to read with understanding and enjoyment and to express ideas, in writing and discussion, about that which is read.
2. To appreciate the ideas and experiences of the great literary figures of the world through a study of their works and their culture.
3. To evaluate literary material through a critical analysis of its structure and thought.
4. To acquire a foundation in those areas of composition, language and literature required for the bachelor's degree.

The Department offers two undergraduate degrees, the Bachelor of Arts and the Bachelor of Science degree, in either of two distinct courses of study. The student may follow the general degree program, with a concentration in English, described in this section of the catalog under the heading, "General Degree Program," or he or she may pursue the specialized course of study described below. In addition, the Department offers an interdisciplinary degree sequence in English-Journalism which is described in the section of the catalog following the listing of English courses.

The Department's specialized degree program leads to either the Bachelor of Arts degree, with or without teacher certification, or the Bachelor of Science degree, with or without teacher certification. Each undergraduate major must complete a minimum of 132 semester hours of work for the bachelor's degree. Sixty hours (60) of the 132 hours must be in 300-400 level courses.

Students who pursue the Bachelor of Arts degree with or without teacher certification and who have completed no (0) units of a foreign language in high school must complete four (4) semesters of work in one foreign language, beginning with the freshman course in that language. Students who pursue the Bachelor of Arts degree with or without teacher certification but who completed two (2) units of a foreign language in high school must complete two (2) semesters in that language, beginning with the sophomore course in that language.

Students who pursue the Bachelor of Science degree with or without teacher certification must complete two (2) semesters of a foreign language, regardless of whether or not they have had a foreign language in high school. The Department recommends that students begin the language in the freshman year.

Students who pursue the bachelor of Arts degree or the Bachelor of Science degree without teacher certification must complete, in addition

to the foreign language requirement and the General Education Core, thirty (30) semester hours of these required courses:

ENG 211 A and 212D (World Literature)	6 hours
ENG 300 (Expository Writing)	3
ENG 361 or 362 (American Literature)	3
ENG (300-400 Elective in British Literature)	3
ENG (300-400 Elective in American Literature)	3
ENG 400 (Senior Seminar)	3
ENG 410 (History of the English Language)	3
ENG 411 (Current English) or 412 (Modern Grammar)	3
ENG 431 or 432 (Shakespeare)	3
	30 hours

Students who pursue the Bachelor of Arts or the Bachelor of Science degree with teacher certification must complete, in addition to the foreign language requirement and the General Education Core, thirty (30) semester hours of required English courses and thirty-three hours in the Professional Education Core for Secondary Majors. These students must also pass several tests required for teacher certification.

Courses required, in addition to the thirty (30) semester hours of English courses, for the B.A. or the B.S. without certification are ENG 100, ENG 101-ENG 102, MATH 111, PE (4 two-digit courses), SCT 121-122, MUS 131, ART 133, HIS 201-202, PSY 201, SPCH 210, Social Science Elective (3 hours).

Courses required, in addition to the thirty (30) semester hours of English courses, for the B.A. or the B.S. with teacher certification are ENG 100, ENG 101-102, MATH 111, SCI 121-122, PE (4 two-digit courses), MUS 131, ART 133, HIS 201-202, ED (201, 301, 387, 465, 472, and 491), ENG 370, PSY (242 and 312), and ENG 372.

The Department encourages English majors to prepare for alternative careers. It recommends, in addition to the English major, a second major or a minor in one of the following areas: Business, Communication, History, Modern Foreign Languages, Political Science, and Psychology.

The Department also encourages students from other disciplines to choose a second major or minor in English. A minor in English includes a minimum of eighteen (18) hours in addition to English 101-102. The required courses for a minor are ENG 211-212, ENG 361 or 362, ENG 410, ENG 411 or 412, and ENG 431 or 432.

To encourage both English majors and nonmajors to attain excellence in scholarship and leadership the Department offers two scholarships and three awards and administers **The Crawford B. Lindsay Scholarship Assistance Awards** which the Tennessee Alumni Chapter gives to two graduating seniors from Tennessee high schools who have elected to major in English at Tennessee State.

The Department scholarships and awards are **The Laura M. Averitte Scholarships** and **The Alma Dunn Jones Essay Awards. The Laura M. Averitte Scholarships** are given each spring to the graduating English major and the second-semester freshman English major with the highest

scholastic average and the most outstanding record of leadership and service. **The Alma Dunn Jones Essay Awards** are given each spring to the three freshman enrolled in Freshman English 102, majors or non-majors, who write the best essays in the Alma Dunn Jones Essay Contest.

CURRICULUM FOR A MAJOR IN ENGLISH
BACHELOR OF ARTS DEGREE PROGRAM
(Without Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
MFL (French, German or Spanish)	4	4
HIST 201-202	3	3
MATH 111	4	
MUS 131 or ART 133		2
ENG 100 (Orientation)	1	
PE (2-Digit) or AFROTC	1	1
SPCH 210		3
	16	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211A-212D	3	3
MFL (French, German or Spanish)	3	3
MUS 131 or ART 133	2	
SOC SCI Elective	3	
PSY 201		3
SCI 121-122	3	3
PE (2-Digit) or AFROTC	1	1
Elective		3
ENG 300	3	
	18	16

JUNIOR YEAR	Credit Hours Fall	Spring
ENG 361	3	
ENG Elective Brit. Lit. (300 or 400 Level)	3	
ENG Elective Amer. Lit. (300 or 400 Level)		3
ENG 410	3	
ENG 411 or 412		3
Electives (300 or 400 Level)	6	12
	15	18

SENIOR YEAR	Credit Hours Fall	Spring
ENG 431 or 432	3	
ENG 400	3	
Electives (300 or 400 Level)	12	15
	18	15

TOTAL: 132 Hours

BACHELOR OF ARTS DEGREE PROGRAM
(With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
MFL (French, German or Spanish)	4	4
HIST 201-202	3	3
MATH 111	4	
MUS 131 or ART 133		2
ENG 100 (Orientation)	1	
PE (2-Digit) or AFROTC	1	1
SPCH 210		3
HLTH 151		2
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211A-212D	3	3
MFL (French, German or Spanish)	3	3
MUS 131 or ART 133	2	
ED 201	3	
SCI 121-122	3	3
SOC SCI Elective		3
PE (2-Digit) or AFROTC	1	1
PSY 242		3
ENG 300	3	
	18	16

JUNIOR YEAR	Credit Hours Fall	Spring
ENG 361	3	
ENG Elective Brit. Lit. (300 or 400 Level)	3	
ED 301	3	
ENG Elective Amer. Lit. (300 or 400 Level)		3
PSY 312		3
ENG 410	3	
ENG 411 or 412		3
ED 387		3
Electives (300 or 400 Level)	3	6
	15	18

SENIOR YEAR	Credit Hours Fall	Spring
ENG 400	3	
ENG 431 or 432	3	
ENG 370		3
ED 491		3
ED 472		9
ED 465 (Special ED)	3	
Electives (300 or 400 Level)	7	
	16	15

TOTAL: 132 Hours

BACHELOR OF SCIENE DEGREE PROGRAM
(Without Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
MFL (French, German or Spanish)	4	4
HIST 201-202	3	3
MATH 111	4	
MUS 131 or ART 133		2
PE (2-Digit) or AFROTC	1	1
SPCH 210		3
ENG 100 (Orientation)	1	
	16	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211A-212D	3	3
MUS 131 or ART 133	2	
SOC SCI Elective	3	
PSY 201		3
SCI 121-122	3	3
ENG 300	3	
PE (2-Digit) or AFROTC	1	1
Electives	3	6
	18	16

JUNIOR YEAR	Credit Hours Fall	Spring
ENG 361	3	
ENG Elective Brit. Lit. (300 or 400 Level)	3	
ENG Elective Amer. Lit. (300 or 400 Level)		3
ENG 410	3	
ENG 411 or 412		3
Electives (300 or 400 Level)	6	12
	15	18

SENIOR YEAR	Credit Hours Fall	Spring
ENG 431 or 432	3	
ENG 400	3	
Electives (300 or 400 Level)	12	15
	18	15

TOTAL: 132 Hours

BACHELOR OF SCIENCE DEGREE PROGRAM
(With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
MFL (French, German or Spanish)	4	4
HIST 201-202	3	3
MATH 111	4	
MUS 131 or ART 133		2
ENG 100 (Orientation)	1	
SPCH 210		3
PE (2-Digit) or AFROTC	1	1
HEALTH 151		2
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211A-212D	3	3
MUS 131 or ART 133	2	
ED 201	3	
SCI 121-122	3	3
SOCIAL SCIENCE Elective		3
PE (2-Digit) or AFROTC	1	1
PSY 242		3
ENG 300	3	
Elective	3	3
	18	16

JUNIOR YEAR	Credit Hours Fall	Spring
ENG 361	3	
ENG (Elective Brit. Lit. (300 or 400 Level)	3	
ED 301	3	
ENG Elective Amer. Lit. (300 or 400 Level)		3
PSY 312		3
ENG 410	3	
ENG 411 or 412		3
ED 387		3
Electives (300 or 400 Level)	3	6
	15	18

SENIOR YEAR	Credit Hours Fall	Spring
ENG 400	3	
ENG 431 or 432	3	
ENG 370		3
ED 491		3
ED 472		9
ED 465 (Special ED)	3	
Electives (300 or 400 Level)	7	
	16	15

TOTAL: 132 Hours

*Sophomores, juniors, and seniors whose cumulative grade-point averages are 3.00 or above may register for as many as three credit hours in excess of the normal curricular load—up to a total of 21 credit hours. Seniors whose grade-point averages are less than 3.00 and more than 2.00 may register as many as three credit hours in excess of their full curricular load, but not in excess of 21 credit hours. Overload must be approved by the Dean of the School of Arts and Sciences.

COURSE OFFERINGS

ENGLISH (ENG)

ENG 000. Writing Lab. (0) The Writing Lab is open without charge to all students enrolled in the University who are having writing difficulties.

ENG 001. English for Foreign Students. (0) The course introduces students who have had previous training in the English language to the formal aspects of written English in preparation for English 101.

ENG 098.*Basic English Skills. (3) Development of language skills. Understanding sentences and paragraphs; spelling and vocabulary improvement. Not offered for degree credit. Students who have passed English 099 or English 101 will not receive credit.

ENG 099.* Basic Composition. (3) Reading and writing sentences, paragraphs, and short essays; studies in sentence structure and grammar. Credit does not count toward a degree. Students who have passed English 101 will not receive credit.

ENG 100. Freshman Orientation. (3) This course introduces the student to college life, surveys the offerings in the English curriculum, introduces methods of study in the field, and familiarizes the student with careers for the English major.

ENG 101. Freshman English. (3) An introduction to the fundamentals of written expression and communication through the study of illustrative essays. Although some attention may be given to grammar and mechanics, the emphasis is upon the principles of rhetoric as they are effectively employed in the development of both the individual paragraph and the complete essay.

ENG 102. Freshman English. (3) While continuing to stress the importance of clear and effective composition, the second semester of Freshman English focuses upon literature. The analysis and explication of literature serve as topics for discussion and study. Furthermore, the course emphasizes writing book reviews and developing skills necessary to prepare the primary source research paper.

*English 098 and 099 carry institutional credit only. Grades will affect the student's grade point average, but neither of the courses counts toward a college degree.

ENG 101-102H. Honors Freshman English. (6) An Honors Course in Freshman English designed for students with special competence in English to work at an advanced level. Class enrollment is limited and restricted to students notified as having qualified for the English Honors section.

ENG 101-102S. English in Special Programs. (0-3) English for students in University approved Special Programs funded by either the Federal Government or other agencies is restricted by conditions that govern the operations of those programs.

ENG 201. Problems in Composition. (3) The student will study material that will help the student to develop mastery of the skills needed to overcome his specific problems in written expression.

ENG 207. Best Sellers: Fiction and Nonfiction. (3) Current and recent best sellers in fiction and nonfiction, considered as literature.

ENG 208. Film and Theater in Town. (3) Analysis of current films and plays.

ENG 211-212. World Literature. (6) An analytical reading of literary works from the following perspectives: Surveys of world literature (211A-212A); of genres (211B-212B); of Black arts (211C-212C); and of English Literature (211D-212D).

ENG 211-212H. Honors World Literature. (6) An analytical reading of selected poetry, prose, and drama from the nations of the world. The subject matter of both semesters is arranged chronologically, with that of the first ranging from the Ancient Chinese through the Renaissance; and that of the second, from the Age of Classicism and Reason to the 20th Century.

ENG 213. Survey of American Literature. (3) A study of major works in American Literature from colonial times to the present.

ENG 221. English Etymology. (1) Origin and derivation of words, Greek and Latin stems most commonly found in the English language with special attention to words in scientific and technical vocabularies.

ENG 300. Expository Writing. (3) Experience in the reading and examination of essays representing the major expository types, with particular attention to rhetorical principles, style and structure, training in the writing of essays illustrating these types; and preparation of the research report, with emphasis on the collection of material, analysis, organization, and arrangement.

ENG 301. Business English. (3) A course in business correspondence emphasizing the different roles of communication in operating management.

ENG 310. Technical Report Writing. (3) A study of the fundamentals of written reports required in modern engineering (310E), with emphasis on grammar, sentence structure, and style as well as on specialized techniques. 310S is the study and preparation of forms and reports required of social workers. 310CJ is the study and preparation of forms and reports required of students majoring in Criminal Justice. Acquaintance with documents of various agencies is stressed.

ENG 311. Creative Writing. (3) A workshop in short story writing. The course examines the techniques and problems involved in writing the short story and places emphasis on the use of the senses and the writing about the experience of living.

ENG 312. Creative Writing. (3) A workshop in writing poetry. The course examines the techniques involved in writing poetry, placing emphasis on the writing of varied poetic types and relating the poetry to other forms of art.

ENG 314. Popular Fiction. (3) A study of popular fiction; western, fantasy, thriller and the historical romance. Emphasis is on form, appeal, and statements about society.

ENG 315. The Film. (3) A study of films: their makers, their message, and their appeal.

Students will not only view films but also review articles and books—books which have been made into films and films which have been made into books.

ENG 320. Children's Literature. (3) (Offered also as Education.) A course offering prospective teachers of the primary grades an opportunity to become familiar with the field of literature suited to the needs and tastes of children. Principles that underlie selection of children's literature are considered.

ENG 331. British Literature from the Renaissance to the Restoration. (3) A study of representative selections from 1500 to 1660 with concentration on non-dramatic literature.

ENG 332. Literature of the Restoration and Eighteenth Century. (3) A study of selected poetry, prose, and drama from the ages of Dryden, Pope, and Johnson.

ENG 333. Eighteenth-Century Fiction and Journalism. (3) A study of the attempts of journalists and novelists to create myths or moral models for their age in a series of social and cultural fictions. Readings in Addision and Steele, Johnson, Fielding, and Richardson.

ENG 341. Literature of the Romantic Movement. (3) A study of representative British selections from 1798 to 1832. Attention is given both to poetry and prose.

ENG 342. The Victorian Era. (3) A study of nonfictional prose writers such as Carlyle, Mill, and Arnold; and of the poets, with emphasis on Tennyson, Browning, and Arnold. Some assignments will be made in the major novelists such as Dickens, Thackeray, and Eliot.

ENG 351-352. Twentieth Century British Literature. (3-3) A study of the major trends in poetry, drama, and the novel of the current century. Emphasis is placed on themes, techniques, and social criticism. Representative British writers are included.

ENG 353. Modern British Poetry. (3) Selections from the works of Hopkins, Yeats, Eliot, Thomas, and others.

ENG 361. American Literature of the Nineteenth Century. (3) A study of major American writers and literary movements, including such writers as Emerson, Thoreau, Hawthorne, Twain and Crane, and such movements as romanticism, transcendentalism, realism, and naturalism.

ENG 362. American Literature of the Twentieth Century. (3) A study of literary trends in the present century, with emphasis on such major figures as Dreiser, Frost, Eliot, Faulkner, Fitzgerald, Ellison, Lowell, Baldwin, and Bellow.

ENG 363. The American Novel. (3) A study of selected works designed to reflect formal developments in the novel, as well as intellectual and moral concerns of the American people.

ENG 364. Literature of Negro Life. (3) A study of Negro literature from its earliest inceptions in America to current times. Particular emphasis is placed on biography, poetry, the essay, and short fiction.

ENG 365. The Contemporary Black Novelist. (3) A study of novelists such as James Baldwin, Ralph Ellison, Margaret Walker, and John Killens, in terms of literary merit and social milieu.

ENG 367. The Short Story. (3) Emphasis on the American short story.

ENG 368. Contemporary American Poetry. (3) Poetry from 1940 to the present.

ENG 369. Contemporary American Fiction. (3) Novels, short stories, and experimental fiction, 1940 to the present, by such authors as Ellison, Barth, Heller, Nabokov, and Pynchon.

ENG 370. Methods of Teaching High School English. (3) A methods course in teaching English in the secondary school. Required of majors in the Teacher Education Program.

ENG 372. Adolescent Literature. (3) A survey of literature relevant to the interests and personal concerns of young adults. Required of the English major enrolled in the Teacher Education Program.

ENG 380. African and West Indian Literature. (3) An introductory course in the literature of Africa and the West Indies. Authors include Chinua Achebe, Wole Soyinka, James Ngugi, Mongo Beti, George Lamming, Camara Laye, and Jacques Roumain.

ENG 381. Comparative Literature: Ancient. (3) Images of classical civilization from Homer to fifth-century Athens to Augustan Rome. Emphasis on epic and tragedy and extensive readings in *The Iliad*, *The Odyssey*, *The Aeneid*, and selected Greek tragedies.

ENG 382. The Literature of the English Bible. (3) The Bible considered as literature.

ENG 383. Superstition, Science and Mysticism. (3) An analysis of information regarding man's attempt to explain experiences, events, expressions, and phenomena in general from a causal and intentional point of view. The course embraces three means used by man in his attempt to explain ultimate reality.

ENG 386. Women in Literature. (3) A course designed to investigate the image of woman in literature as it relates to sexual roles, judgments, choices, and equality; and to broaden a student's knowledge of some of the values, life styles, goals and achievements of women—in the past and today.

ENG 400. Senior Seminar. (3) Designed to complete English major by inquiring into the purposes and methods of the liberal arts in general and literary study in particular. Attention will be paid to the resources for literary scholarship, and criticism. Students will write a variety of reports and critical papers, including a lengthy final paper which incorporates the techniques and knowledge acquired during the semester. Required of all English majors.

ENG 401. Special Topics. (3) Student or faculty generated course. Scope of subject matter to be determined by students and instructor. May be repeated up to a maximum of six (6) hours.

ENG 402. Special Topics in World Literature. (3) Studies in Western literature in translation. Subject matter to be determined by the instructor with the approval of the English faculty. May be repeated up to a maximum of six (6) hours.

ENG 410. History of the English Language. (3) A study of the development of the English language from the beginnings to modern times. Some attention is given to phonetics and to the elementary principles of linguistics. Required of all English majors.

ENG 411. Current English. (3) New trends in teaching English and their relationship to significant trends in the past. Students will also develop projects that will be used as supplementary texts in the course.

ENG 412. Modern English Grammar. (3) An introduction to the "new" theories of grammar and an application of these theories of grammar as a tool for analyzing literature and composition more intelligently.

ENG 413. Advanced English Grammar. (3) Traditional approaches to grammar.

ENG 420. Chaucer. (3) An introduction to the works of Chaucer, with emphasis on the background of the age and on the development of Chaucer as a literary artist.

ENG 422. The Continental Novel. (3) A study of selected Continental novels with attention to the social background in which they were written.

ENG 423. Literature of the Middle Ages. (3) Studies in the prose and poetry of the Middle Ages, including *Beowulf* and the works of the *Pearl*-poet, Langland, and Malory.

ENG 424. The Major Poetry of Edmund Spenser. (3) A primary concentration on *The Faerie Queene* with attention to other works.

ENG 426. The Contemporary Novel—from 1945 to The Present. (3) An introduction to the major novelists and trends in the novel since 1945. Novelists forming the core of the course are Gunter Grass, Vladimir Nabokov, John Hawkes, Ralph Ellison, Samuel Beckett, William Styron.

ENG 431-432. Shakespeare. (3-3) A study of the principal histories, comedies, and tragedies of Shakespeare, with emphasis on the cultural background of the Elizabethan period.

ENG 433. The Metaphysicals. (3) A study of the works of Donne, Herbert, Crashaw, Vaughn, and other representatives of the "Metaphysical School of Poetry."

ENG 434. Milton and Bunyan. (3) A study of John Milton's minor poems; important prose tracts: *Paradise Lost, Paradise Regained,* and *Samson Agonistes*; and of Bunyan's *Pilgrim's Progress*.

ENG 441. Nineteenth Century English Novel. (3) A selection from the major writers of the period: Scott, Dickens, Eliot, Thackeray, Trollop, Emily Bronte, Hardy, Galsworthy, and others.

ENG 451. The English Novel: Twentieth Century. (3) Selections from the works of Conrad, Forster, Lawrence, Joyce, Woolf, and others.

ENG 480. Introduction to Literary Criticism. (3) Major critical doctrines from antiquity to the present, with emphasis on twentieth-century movements.

ENG 481. Southern Literature. (3) Survey of Southern literature from William Byrd to the Fugitives.

ENG 482. Literature of the New Journalism. (3) An examination of the literary impact of the New Journalism, with emphasis on Capote, Wolfe, and Hunter S. Thompson, and the use of novelistic techniques in reporting events.

ENG 490. Undergraduate Readings and Research. (3) Individual study and research under faculty guidance.

ENGLISH-JOURNALISM CURRICULUM

The English-Journalism sequence is a career-oriented curriculum designed for students whose primary interest is writing (either fiction or nonfiction) and who hope to be employed in journalism or publishing. English-Journalism students receive either a Bachelor of Arts or Bachelor of Science degree in Arts and Sciences, with a concentration in the Humanities. They follow the degree requirements described under the heading, "General Degree Program," within the School of Arts and Sciences.

Working within general degree requirements, students select appropriate courses, primarily from the Departments of English and Communication, to design a program leading to careers in writing, editing, publishing, advertising, public relations, or newspaper reporting. Flexibility and development of diverse skills are encouraged. Students are urged to include courses in at least two complementary fields. For instance, students whose main interest is nonfiction writing might take advanced courses in editing and newspaper reporting in addition to relevant courses in literary criticism, feature and magazine writing, literature of

the new journalism, and reviewing and criticism. Students interested mainly in fiction writing might add any of the above courses to courses in creative writing as a means of broadening their scope. In addition, students interested in advertising or public relations will find appropriate combinations of writing courses, both fiction and nonfiction, indispensable for success in their chosen field.

Students should have a minimum of 18 upper division hours in English and 18 upper division hours in journalism. Three of the upper division journalism hours should be earned through media experience in Journalism 480 (Journalism Project).

DEPARTMENT OF GOVERNMENT AND PUBLIC AFFAIRS (Formerly Department of Political Science)

DR. ALPHONSE THOMPSON (Acting Head)

The Department of Government and Public Affairs is distinguished from other professional and academic departments and faculties of the University by a central focus on public affairs and public service more comprehensive than that of other academic departments. Yet the departments main concern is the academic preparation of undergraduate political science and public administration majors.

General Political Science

The curriculum in political science is designed to promote the broad purposes of the School of Arts and Sciences as well as to provide more intensive preparation for advanced study. The courses aim to help students acquire knowledge and attitudes which contribute to more intelligent and responsible political behaviors in a society and in a world undergoing rapid change.

A major consists of a minimum of 42 semester hours with a minimum of 35 hours on the 300 and 400 levels. Students may pursue one of two Baccalaureate degrees, the B.A. degree or the B.S. Students in the B.S. degree program may choose to qualify for teacher certification. A major in Political Science provides a student with the opportunity to acquire a broad education that will equip him to adapt to a wide variety of careers. The program is designed (1) to encourage the student to analyze the theories, institutions, and processes of political systems in the context provided by the social sciences; (2) to provide preparation for careers in government, planning, public administration, etc.; and (3) to stimulate student interest in graduate and professional study.

Public Administration

The department also offers an undergraduate concentration in Public Administration. It is designed to prepare students for responsible intel-

lectual and dynamic leadership in the modern world. It seeks to equip undergraduates with sufficient knowledge of the political world and skills in public administration so as to enable them to be productive members of society.

Pre-Law

GPA provides one of the most frequently recommended curricula designed for students who wish to enter law school and ultimately the legal profession. Fifteen hours: GPA 221—American Government (6); GPA 430—Introduction to American Law (3); GPA 434—Legal Research and Writing; GPA 431-32—Constitutional Law and Judicial Process(6), should be taken during the four year period. The case method is used in instructing the pre-law courses.

Urban Affairs

In addition to the Bachelor of Science and Bachelor of Arts programs, the Department of Government and Public Affairs also offers an undergraduate Interdisciplinary concentration in Urban Affairs.

In this era of rapid urbanization and technological sophistication there is a need for a complete and thorough understanding of urban dynamics which allows one to be able to view the city as a phenomenon. This requires an amalgamation and synthesis of subject matters between and among the various social and professional disciplines of the University.

The development of an Urban Affairs concentration is a response to this challenge. It is designed to broaden the horizon and thus enhance the marketability of students matriculating in the Department of Government and Public Affairs. Since public policy is essentially a response to the needs of society which is comprised of both urban and rural publics, it is incumbent upon the potential developers of those policies to be abreast of the social, political and economic intricacies of those environments as well as their interactions and interdependencies thereof. The Urban Affairs concentration is drawn from Government, Sociology, Psychology, Business Administration, and Geography and History.

The entire concentration consists of thirty-three credit hours administered with joint as well as multi-faceted collaboration.

Most of the courses will be taught by utilizing the resources of the Social Science Laboratory in which gaming and simulation innovations will be emphasized.

International Relations

The concentration in International Relations rests on two basic premises: (1) the concept of professional study for careers in international affairs is a valid one. Indeed, changes in the scope of International

Relations, their increasingly complex and multi-dimensional characters, and the growing interdependencies in the international system, all make the rigorous study of international relations more compelling and challenging than ever. (2) Recent and profound changes in the nature of the world structure have made it essential to reassess and redefine the knowledge and skills which policy-makers will need to cope with international problems and challenges in the decade ahead, and to restructure professional education to provide the requisite information. Both governmental and private decision-makers, in short, will require a much broader and deeper understanding than they have hitherto needed of the nature of the political, legal, economic, psychological and socio-cultural process in their own and other countries.

As a minimum majors are required to take at least six upper division hours in each of the following subfields: American Government, International and Comparative Studies, Political Theory, Constitutional Law and Public Administration up to six hours in research methods and quantitative skills are also required.

BACHELOR OF ARTS CURRICULUM

FRESHMAN YEAR	Credit Hours Fall	Spring
GPA 101, 221	3	3
ENG 101, 102	3	3
MATH 111, 112	4	3
ART, MUS DRAMA PHIL	2	2-3
MOD FOREIGN LANG (100 level)	4	4
PHYS ED 11-41	1	1
	17	16-17

SOPHOMORE YEAR	Credit Hours Fall	Spring
GPA 310, 315	3	3
GPA (300 or 400 level) 300, 301, 360, 361, 390, 392, 420, 421, 423, 431, 432, 440, 441, 442, 444	6	6
Electives 300 or 400 Level	3-6	3-6
MOD FOREIGN LANG	4	4
	16-19	16-19

JUNIOR YEAR	Credit Hours Fall	Spring
GPA 222, 320	3	3
ENG 211, 212	3	3
SCI 121, 122	3	3
HIST 201, 202	3	3
MOD FOREIGN LANG (200 level)	4	4
PHYS ED 11-41	1	1
	17	17

SENIOR YEAR	Credit Hours Fall	Spring
GPA 300 or 400 Level (See Jr. year)	6	6
GPA 450	3	
Electives (300 or 40 level)	3	6-9
MOD FOREIGN LANG	3	3
	15	15-18

BACHELOR OF SCIENCE CURRICULUM

FRESHMAN YEAR	Credit Hours Fall	Spring
GPA 101, 221	3	3
ENG 101, 102	3	3
MATH 111, 112	4	3
ART, MUS, DRAMA, PHIL	2	2
PHYS ED (11-41)	1	1
Elective(s)	3	6
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
GPA 222, 320	3	3
ENG 211, 212	3	3
SCI 121, 122	3	3
HIST 201, 202	3	3
Elective(s)	3	3
PHYS ED (11-41)	1	1
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
GPA 310, 315	3	3
GPA 300 or 400 level (300, 301, 360, 362, 431, 420, 421, 422, 440, 441, 442, 443, 444, 390)	6	6
Electives (300-400 level)	6-9	6-9
	15-18	15-18

SENIOR YEAR	Credit Hours Fall	Spring
GPA 300 or 400 level (See Jr. Yr.)	6	6
GPA 450	3	
Electives (300-400 level)	6-9	9-12
	15-18	15-18

BACHELOR OF SCIENCE DEGREE PROGRAM (With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
GPA 101, 221	3	3
ENG 101, 102	3	3
MATH 111, 112	4	3
PE (11-41)	1	1
ART, MUS, PHIL	2-3	2-3
PSY 242		3
ED 201	3	
	16-17	15-16

SOPHOMORE YEAR	Credit Hours Fall	Spring
GPA 222, 300	3	3
ENG 211, 212	3	3
SCI 121, 122	3	3
HEALTH 151, PHIL 323	2	2
HIST 201, 202	3	3
PE (11-41)	1	1
	15	15

JUNIOR YEAR	Credit Hours Fall	Spring
GPA 310, 420	3	3
GPA 300 or 400 level	6	6
ED 301, PSY 312	3	3
ED 387, 465	3	3
Electives	3	3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
GPA 450	3	
GPA 451	3	
GPA 300 or 400 level	9	
ED 491		3
ED 472	3	9
HIST 371		3
	18	15

BACHELOR OF SCIENCE DEGREE
Urban Affairs Concentration

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
GPA 101, 221	3	3
MATH 111, 112	4	3
PE (11-41)	1	1
SCI/BIO/CHEM	3	3
ART 133, MUS 131	2	2
UA/SOC 330		3
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
PE (11-41)	1	1
GPA 222, 320	3	3
HIST 201, 202	3	3
GPA/UA 310, 315	3	3
GPA 360, 368	3	3
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
ECON 211, 212	3	3
GPA/UA 446, 447	3	3
GPA 430, SOC/UA 460	3	3
Electives (GPA 300 level)	6	6
SP 201 or 202, 362	3	3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
GPA/UA 491, 450	3	3
GPA/SOC/GPA 451, 400	3	9
GEO 391	3	
SOC/UA 460	3	
Electives (GPA 300 or 400)	3	3
PSY/UA 436	3	
	18	15

UNDERGRADUATE GOVERNMENT AND PUBLIC AFFAIRS COURSES (GPA)

GPA 101. Introduction to Political Science. (3) An introduction to the crucial ideas, questions, problems and methods involved in man's attempt to achieve order, justice and welfare in politics. The ideas, institutions, processes and behavior associated with modern democratic political systems are emphasized. The meaning of such concepts as freedom, authority, equality and constituionalism are explored in depth. Consideration is given to the elaboration or adaptation of values through the workings of political institutions and processes.

GPA 221. American National Government. (3) An introductory course which deals with the foundation, organization, and principles of national government. Attention focused on the relations of the citizens to the government and the rights, duties and obligations of citizens. GPA 221. is PREREQUISITE TO ALL UPPER DIVISION COURSES.

GPA 222. State and Local Government. (3) An analysis of the structure, principles, and operations of the state and local units of government and the nature of intergovernmental relations in the American Federal System. Illustrative material is drawn largely from Tennessee. (e)

GPA 300. History of Political Philosophy. (3) Selected political philosophers from classical Greece to 1900, including Plato, Aristole, Machiavelli, Locke, and Rousseau.

GPA 301. Contemporary Political Philosophy. (3) Recent works on the central issues in political philosophy economic justice, rights, political authority. Prerequisite: GPA 300.

GPA 310 RESEARCH METHODOLOGY (3) An introduction to social science research methodology which involves data collection and processing procedures, computer usage, surveys, statistical analysis and research design. Prerequisite: GPA 101, 221-222.

GPA 315. Public Opinion & Voting Behavior. (3) An analysis of the process by which opinions are formed and of the purposes and techniques of propaganda and the functions and expression of public opinion.

GPA 320. Patterns of Tennessee Government. (3) Study of Tennessee Government from the functional point of view emphasizing political activities, taxation, education, social welfare and economic services of the Government. Prerequisite: GPA 222. (e)

GPA 360. Introduction to Comparative Government and Politics. (3) This is a prerequisite for all comparative government in this department. It is therefore, necessary to take this course before taking any other comparative course. Throughout the course, the central question of what constitutes a valid comparison will be considered. (e)

GPA 361. Comparative Government and Politics of Selected Areas. (3) The course sets out to do two things—to construct a theoretical framework that makes possible a comparative method of analysis for political systems of all kinds. Secondly, to offer a comparative analysis of the political systems of those areas of the world in which dramatic social and political changes are taking place in Asia, Africa, Latin America. Prerequisite: GPA 360. (e)

GPA 363. International Organization. (3) Designed to examine the nature of international organization and that of regional organizations. Materials include military, economic, cultural and political regional integration experiences, with emphasis on the United Nations and its Agencies, European Economic Community; North Atlantic Treaty Organization (NATO); Organization of American States (OAS); Organization of Africa; Unity (OAU); Economic Community of West African States (ECOWAS); etc.

GPA 365. International Relations. (3) An examination of the present-day relations and problems among states of the world and the major factors which underlie and influence these relations. Prerequisite: GPA 360 (e)

GPA 367. American Foreign Policy. (3) A study of the forces and factors involved in American foreign policy and of the processes through which it is developed. (e)

GPA 368. Third World Politics. (3) An introductory course on political-economic change in the Third World, to provide an understanding of some of the major problems confronting Third World nations and to give insight into the various tools and strategies that Third World political leaders can use in dealing with those problems. Investigates some of the major avenues toward political development, and will briefly assess the costs and benefits of the approaches discussed. (e)

GPA 371. Teaching Political Science Education in Secondary Schools. (3) The theory, methods and materials for teaching the disciplines in the social science area will be dealt with. Attention is given to the inter-relatedness of the various disciplines or discipline combinations as they are taught in secondary schools.

GPA 390. Introduction to Urban Affairs. (3) This interdisciplinary course between Government and Public Affairs and Sociology will examine the interaction among government, the economy, both social and physical environments as it relates to urban life. An understanding of the complexity of urban life (i.e., social, political and economic needs) will be emphasized. (e)

GPA 391. Urban Politics. (3) Surveys principal urban problems, their causes and public policies that deal with them. Designed to acquaint the students with the ideas of the major writers on such aspects of urban communities as the role and development of cities; their government, administration and finance; urban planning and design; poverty and slums; ethnic, race and class relations; the administration of justice; urban mass transit; and the quality of urban life in the urban environment. (e)

GPA 392. Black Politics. (3) An analysis of the past, present and future role of Blacks in the American Political System. The social, economic, and political position of Blacks as related to that of the larger population will be explored. Major work by and about Black Americans will be utilized. (e)

GPA 400 Internship in Public Administration. (3-9). Designed to intensify pre-service (graduate) public administration students' knowledge of the institutions involved in the governing processes. It should enable a student to learn in an actual setting while providing a service for the agency where he/she is interning. The needs and opportunities vary by agency so every program is different from others. Certain features are beneficial to any program, and these are combined in the department's service-learning internship program model. (e)

GPA 405. Special Topics. (3) Student or faculty generated course. Scope of subject matter to be determined by students and instructor. Prerequisite: Permission of the instructor. (e)

GPA 420. Legislative Process. (3) An examination of the structure and methods of transacting business in the American Congress and State Legislature, and the role of legislatures in the American Political System. (e)

GPA 421. Judicial Process. An analysis of the court systems in the United States, both their role in the political system and the procedures by which they make decisions. (e)

GPA 422. Parties and Elections. (3) Structure and functions of the party system—nominations, campaigns and elections. The role of parties in the political process. (e)

GPA 423. The Presidency. (3) This course is concerned with the office of the President of the United States in terms of both the institution and the men who have held that office. The origins, incumbents, responsibilities, and evaluations of the Presidency are considered in depth. Particular emphasis is placed on the study of the modern presidency as it has developed in the last half century. (e)

GPA 424. Government, Public Opinion and the Press. (3) Relations of executive, legislative, judicial and regulatory bodies and the press. Role of the press in expressing and influencing public opinion and governmental policy. (e)

GPA 430. Introduction to American Law. (3) This course is divided into three parts: Part I has three purposes; (1) to acquaint the student with English Common Law; (2) provide the student with an understanding of the close affinity which the development of American Law has to English Common Law; and (3) to trace the historical development of the American Law from the colonial period up to the twentieth Century. Part II has two purposes (1) to acquaint the student with basic legal concepts and doctrines, (2) to familiarize the student with both state and federal court systems. Part III has two purposes: (1) to provide the student with a general survey of the law in modern American Society as it determines the basic rights and liabilities of private persons, and (2) to examine basic principles of law with which most of us are confronted in daily interaction with business and each other.

GPA 431. Constitutional Law—Part 1. (3)

GPA 432. Constitutional Law—Part 2. (3) These courses are devoted to a study of the sources, principles and powers of government in the United States as embodied in the Constitution and Judicial decisions in leading cases. They cover judicial decisions in leading cases. They cover judicial review, the power of the legislative, executive and judiciary; the relation between the national government and states; freedom of speech, press and religion, due process and equal protection. (e)

GPA 434. Legal Research and Writing. (3) The purpose of this course is to acquaint the student with the major types of federal court reports, digests, citators, annotated reports, encyclopedias, treaties, restatements and law reviews. A fact situation will provide the basis for a legal research problem. (e)

GPA 435. International Law. This course will cover the basic legal concepts and principles governing state behavior in the International order: the nature and sources of international law; international agreements; soverignty; states and recognition of statehood; jurisdiction; immunities and state responsibility. (e)

GPA 440. Introduction to Public Administration. (3) Principles of public administration, structure, and organization; financial management; administrative responsibility and the relation between the administration and other branches of government in the United States. (e)

GPA 441. Public Personnel Administration. (3) Concerned with the administrative procedure at all levels of government with due reference to structural and environmental factors. The aim is to develop skills in analyzing administrative problems. (e)

GPA 442. Selected Topics in Organization Theory. (3) Critical survey of existing models/schools/approaches to the design of organization, planning, budgeting and control. Emphasis on recent developments in the theory and its relevancy to current problems in the public sector.

GPA 443. Human Relations and Management. (3) Deals with the different aspects of employee-employer relations, organizational communication, coordination and motivation of employees.

GPA 444. Organizational development, innovation and planned change. (3) Review of different strategies and approaches to organizational development, planning of change reducing the resistance to change. (e)

GPA 445. Policy Sciences. (3) This is an introduction to the tools and skills that can be used to analyze the policy-making process in the United States. It provides an analysis of the policy-making process of the national level in the United States focusing on the role of the three branches of government, political parties, citizens and the press.

GPA 446. Intergovernmental Relations and Regionalism. (3) Survey of the relations among government agenices throughout the sectors of government, i.e., local, state and national. Includes an examination of the impact of these relations on policy development and level and quality of citizen participation. Prerequisite: GPA 222 (e)

GPA 447. Research Seminar and Workshop in Public Management. (3) Consists of field work and class discussions on selected issues, e.g., zero-based bugetting, sunset legislation, community action, etc. Working as a group and on individual basis with the instructor. Students analyze empirical data and compile a final report. (e)

GPA 450. Senior Project. (3) A directed research project upon a specific problem. The purpose of the project is to use conceptual knowledge and skills learned in research methodology and knowledge about particular area of political science.

GPA 451. Independent Study. (3) This class is designed to afford students the opportunity to engage in a course of study of greatest interest to him or her. The student has latitude in deciding the nature and type of project to be done. However, faculty approval and supervision is required. Prerequisite: SENIOR STATUS AND AT LEAST 24 HOURS OF UPPER DIVISION POLITICAL SCIENCE. (e)

DEPARTMENT OF HISTORY AND GEOGRAPHY

DR. STEPHENS (Head)

The Department offers courses of study at the undergraduate level leading to the Bachelor of Arts and Bachelor of Science degrees. Students may earn either degree with a major in history, or they may follow the requirements for the "Interdisciplinary Degree Program," described elsewhere in the Arts and Sciences section of the catalog.

Instruction in history is designed to present the main aspects of the rise and development of civilization. The curriculum emphasizes the social, economic, and political phases of history, but it also deals with the institutional, cultural, diplomatic and religious phases. One aim of the curriculum is to enable students to read historical literature critically and to acquaint students with the facts in the development of man to the present.

The program is designed to give the students, within the first two years, knowledge of the important events, characters and development in the past of mankind. To achieve this aim, the curriculum requires that all majors have a general understanding of certain related fields. Instruction in history during the Junior and Senior years is designed to prepare students for service as junior and senior high school teachers.

Other purposes of the curriculum are to prepare students for graduate study, the study of law, and for careers in government service, social agencies—Local, State, National, and backgrounds for business and industry and related areas.

The history credit requirement for a major in this field is a minimum of 33 semester hours, including a minimum of 18 semester hours in 300 and 400 level courses. The program of study for each major includes the following courses: History 121, 122; 201, 202; 301; 302; 331, 341 or 342, 371, and 402, 450, and 491 or 492, or 493. Students majoring in history should also complete twelve (12) semester hours in a foreign language if they are not certifying to teach. (Only "C" grades are accepted by transfer students)

MINOR

A minor in history consists of eighteen (18) semester hours of course work. The following courses are recommended: History 201, 202, 301, 302, 341, or 342, 491 or 492 or 493.

For courses taken in this Department, as part of a major or minor, a grade of "C" or higher must be earned in order for the credit to be accepted, (Only "C" grades are accepted by students who are transfer students)

AFRO-AMERICAN CULTURE MINOR

The Department offers a minor in Afro-American Culture. The program for this minor includes the following courses: Geography 372, 382, 412, History 385, 386, 491, 492. Students may select the two courses in Latin American or Far East History.

GEOGRAPHY MINOR

The program for a minor in geography consists of a minimum of eighteen (18) semester hours of credit in geography courses.

Geography 171 and 172 or 271 and 272 are prerequisites for all upper level geography courses.

CURRICULUM FOR A MAJOR IN HISTORY
(Bachelor of Arts Degree)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
HIST 121-122	3	3
SCI (Bio, Chm, Nat Sci)	3	3
MATH 111	4	
PE or AFROTC	1	1
HIST 101	1	
Humanities Electives		3
GEOG		3
	15	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-212	3	3
MFL	3	3
SOC SCI (Econ, Pos, GEOG)	3	3
HIST 201-202	3	3
PE or AFROTC	1	1
PSY 221, 242	3	3
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
GPA (Electives)	3	3
HIST 341, 331	3	3
HIST 301-302	3	3
Minor (300)		
SOC SCI		
GEOG 271-272	3	3
or GEOG 391, 412	3	3
MFL	3	3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
HIST 491 or-and 492	3	3
HIST (300-400) Elective	3	3
Minor (300-400)	3	3
HIST 450	3	
Electives	3	3
HIST 491-492	3	3
	18	15

BACHELOR OF SCIENCE DEGREE IN HISTORY (With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-102	3	3
MATH 111	4	
SCI 121-122	3	3
ART 133		2
HIST 121-122	3	3
PE or AFROTC	1	1
GEOG 171 or SOC 211		3
HIST 101	1	
	15	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
HIST 201-202	3	
ENG 211-212	3	3
ED 201	3	3
PSY 242		3
PHIL 323; MUS 131	2	3
PE or AFROTC	1	1
GEOG or SOC Electives	3	3
HEALTH 151	2	3
	17	19

JUNIOR YEAR	Credit Hours Fall	Spring
HIST 341, 331 or 342	3	3
HIST 301-02	3	3
ED 301	3	
PSY 312		3
ED 387		3
HIST 491—Elective 300	3	3
GEOG (300-400 level)	3	3
ED SP 465	3	
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
HIST 451	3	
ED 491	3	3
HIST 492, 371	3	3
HIST 450	3	
GPA or SOC (300-400 level)	3	
GEOG 400	3	
ED 472 (ED 491)		9
	18	15

BACHELOR OF SCIENCE DEGREE IN HISTORY (Without Certification)

FRESHMAN YEAR	I	II
HIST 121-122	3	3
ENG 101-102	3	3
SCI 121-122	3	3
ART 133		2
MATH 111	4	
GEOG 171		3
SPCH 210		2
PE or ROTC	1	1
Orientation 101	1	
	15	17

SOPHOMORE YEAR	I	II
HIST 201-202	3	3
ENG 211-212	3	3
SOC 211, 320	3	3
GEOG 391; Elective	3	3
MUS 131		2
GEOG 271	3	
ROTC or PE	1	1
PSY 201 or 243		3
	16	18

JUNIOR YEAR	I	II
HIST 301-302	3	3
HIST 331	3	
Electives		3
HIST 341		3
HIST 391	3	
GEOG 300 or 400	3	3
*Elective 300 or 400	6	6
	18	18

SENIOR YEAR	I	II
HIST 450	3	
HIST 401	3	
ELEC HIST 362, 422 or 451	3	3
HIST 491-492	3	3
*Elective 300 or 400	6	9
	18	15

Students should select-minor- 18 hours in Geography, Social Sciences, Languages, or Humanities.

AFRO-AMERICAN Studies

*Students interested in Afro-American Studies (Double Major) should elect 24 hours from the following courses:

History 385-452
Geography 412
Sociology 320, 370
Social Welfare 460
Psychology 323
English 364-365
Speech 434-422
French 410
Music 434

Students electing to minior in Geography, Library Science, or Communications (Radio and Television) must complete 18 semester hours of courses on the 300 and 400 level.

(In order to complete a *double major* most students who have not had consistent 3.00 averages and have taken over loads—may have to attend summer session to make up the required hours).

DEPARTMENT OF HISTORY AND GEOGRAPHY

COURSE DESCRIPTIONS

HISTORY (HIST)

HIST 101. Freshman Orientation. (1) This course covers the four broad areas of Freshman Orientation: Introduction to College; Academic Adjustjustment; Educational and Vocational Planning; and Personal Adjustment. The concluding part of the course encourages the undergraduate to examine the values he lives by and to recognize their importance to his success not only in college but also throughout life. Required of all history and social science and geography majors.

HIST 121-122. Growth of Civilization. (3-3) A survey of the contributions made be all races to world civilization and the importance of these contributions to the progress of mankind. History 121; survey of world History from ancient times to the age of absolutism to present.

HIST 121H-122H. Honors: Growth of Civilization (1500-present). (3-3) The major social, economic, political, religious, and intellectual developments in European History from medival times to 1815. History 122 is a continuation of 121 with some emphasis on Indian life and customs in the United States, and African life, to the present.

HIST 201-202. American History. (3-3) This course is a study of the development of cultural economic and political institutions in America from the pre-Columbian period and political institutions in America from the pre-Columbian period to the present. History 201 covers the pre-Columbian period to 1877. History 202 encompasses the emergence of industrial America to the present. Special emphasis is placed on political development in Tennessee and-the nation from 1776-present. This service course is designed to provide instruction, insight, and understanding of the American political process and history.

HIST 201H-202H. Honors American History. (3-3) An intensive and extensive study of American history from the European period to the present. Great emphasis is placed upon

oral and written exercises. These courses are open to students with recognized high potential and academic rating. This course is in lieu of History 201, 202 for those qualified.

HIST 301-302. Foundations of Modern Europe. (3-3) The first course traces the major political, social, economic, and intellectual development of Europe from 1500 to 1815. The second course, 302, is a study of Europe from 1815 to the present.

HIST 331. American Colonial History. (3) The economic, social, religious, cultural, and political development of America from 1492 to 1789.

HIST 333. The Early National Period. (3) An in-depth study of the American republic from 1789-1824. This course explores the growth of the American nation from the inauguration of Washington through the Era of Good Feelings.

HIST 335. The Age of Jackson. (3) A study of the impact of Andrew Jackson's life and public career upon the development of the state and nation from 1824-1845. Examines issues of national growth, industrialization, urbanization, and changes in political institutions.

HIST 339. Age of Industrialism. (3) An examination of American history from 1877-1900. Focuses on the rise of the industrial machine, its political consequences, intellectual trends, and emerging social patterns.

HIST 341. History of Tennessee. (3) An investigation of the cultural, economic, political development of Tennessee from territory to the present. Emphasis will be placed on the contributions of minorities—American Indians and Negroes.

HIST 342. History of Tennessee, Twentieth-Century United States. (3) This course focuses on political, social, and cultural developments in the United States from 1900 to the present. Such topics as World War I, Great Depression, the New Deal, World War II, the Cold War, and McCarthyism will be studied. History 342—From 1900 to the present.

HIST 361. Introduction to the Philosophy of History. (3) A study of the philosophy of history and historical literature of major European and American thinkers from the time of the Greeks to the present. Includes Thucydides, Herodotus, Tacitus, St. Augustine, Vico, Voltaire, Hegel, von Ranke, Marx Turner, Beard, Toynbee, and others.

HIST 362. Constitutional History of the United States. (3) One year of college history and political science. Attention is focused on the factors which have influenced constitutional changes and the historic cases in which the provisions and principles of the Constitution have been interpreted and applied.

HIST 363. History of Science and Technology. (3) This course acquaints the student with selected topics and sources in the historical development of modern science and technology from the Renaissance to the present, including the fields of philosophy of science, mathematics, the physical sciences, the earth sciences, the biological sciences, the sciences of men, medicine, technology, and the pseudo-sciences.

HIST 364. Urban America—From the Colonial Period to the Present. (3) This one semester course will begin with the American colonial period and end with the present day. Interdisciplinary in character, the course will give signal attention to the political, economic, sociological, gemographic, and geographical influences effectuating the transformation of American society from an agrarian to an urban culture. The social, political, and economic dislocations attendant with this transformation will be further sources of analysis and discussion.

HIST 371. The Teaching of Social Sciences. (3) The theory and materials for the teaching of history, geography, and social sciences. Required of majors in the department who plan to teach in secondary schools and junior colleges.

HIST 372. Economic History of the United States 1500 to 1865. (3) Development from early colonial times to end of Civil War.

HIST 373. Economic History of United States From 1865 to Present. (3) Study of economic forces and legislation since 1865 to the present.

HIST 374. The Family in American History. (3) A study of domestic life, childhood and youth, women's roles, and sexual ideologies in America. Emphasis will be placed on the diverse types of family patterns and changes in attitudes throughout history. The course is interdisciplinary in that it is based upon the research of several disciplines.

HIST 375. Women and Children in European History. (3) An introductory survey of the position and roles of women and children from ancient times to the present. Explores attitudes toward women and women's status in European societies. Equal emphasis will be placed on perceptions about children and child-rearing practices.

HIST 381. Civil War and Reconstruction (1850-1900). (3) A study of the sectional differences of the 1850's, the course of the Civil War, the constitutional problems, and the participation of the freedmen in Reconstruction, the Grant administrations, and history to 1900.

HIST 384. Ancient History. (3) An examination of ancient civilzations and the study of Roman and Hellenistic cultures. Materials in this course will include archaeological evidence, philosophical writings, and the study of political institutions.

HIST 385. North Africa. (3) A history of North Africa and Middle East to 1800.

HIST 386. North Africa. (3) A history of North Africa from 1801 to present.

HIST 387. Medieval History. (3) A topical approach to the European Middle Ages. Focuses on early Christianity, feudalism, manorialism, the development of kingship, the rise of towns, Church-State conflicts, and the twelfth-century revival.

HIST 388. Renaissance and Reformation Europe. (3) An intensive study of the period c. 1300-1600 in Europe. Focus will be placed on economic, political, intellectual, and religious developments of the period. Particular attention will be given to artistic works, humanist thought, and the ideas of the major religious reformers.

HIST 391-392. Russian and East European History. (3-3) Origins and expansion of East European countries since 1815. This course discusses and analyses the realities of political, social and cultural developments in Poland, Czechoslovakia, Bulgaria, Rumania and Russia, with emphasis on Russia before and after the revolution of 1917. The interaction between the East and West focuses on the trends of events leading to socialist revolution and its impact on East European countries outside the Soviet Union since 1945. History 392 concentrates on the period from 1924 to the present.

HIST 393. French Revolution and Napoleon. (3) An intensive examination of French society, government, and thought during the eighteenth and early nineteenth centuries. Particular attention will be given to the cause for the Revolution, to the stages of revolutionary activity, and to the nature of Napoleon's reign.

HIST 401. The World in the Twentieth Century (3). Major world events and issues since 1900, including the rise and decline of colonial empires with emerging nationalism, impact of democracy, fascism and communism, 19th and 20th century thought, effects of science and arts on our great, age, attempts at international government, organization, and cooperation, and the revolution of rising expectations.

HIST 402. Twentieth Century World Leaders. (3) Biographical history of key twentieth century western and non-western men and women in historical perspective. Examines the leader's characteristic, philosophy, leadership capabilities, and contributions to arts, business, education, literature, politics, religion, and science.

HIST 411-12. European Social and Cultural History. (3-3) History 411 Analysis of social realities, cultural attitudes, and intellectual thought. Focuses on such topics as (humanism, religious reform, enlightenment, industrialism, romanticism, and totalitarianism). History 412—From the Renaissance to the present.

HIST 421-22. Diplomatic History of the United States. (3-3) A survey of the foreign relations of the United States from 1776 to present. History 421 (1776-1868), History 422 (The intensive survey of international relations of the U.S. from 1877 to present).

HIST 425-26. Social and Cultural History of the United States. (3-3) Analysis of social, cultural, and intellectual thought. Focuses on such topics as Puritanism, the Enlightenment, romanticism, individualism, Social Darwinism, urbanism, and popular culture. History 425:—From 1600 to 1865; History 426:—From 1865 to the present.

Vital Topics 431-32. (3-3) Selected topics and issues that are not covered specially in other courses, that may be of significant importance to the nation, open to students of high scholastic standing.

HIST 441-42. Special Readings. Designed upon request of the individual student who needs supplementary study in an area not ordinarily covered in course offerings.

HIST 427-28. History of the South. (3-3) An examination of the unique Southern experience. Explores such topics as Indian conflicts, American slavery, Southern nationalism, Civil War and Reconstruction and Southern integration. History 427:—From Jamestown to 1865; History 428:—From 1865 to present.

HIST 450. Introduction to Historical Research. (3) Primarily for seniors majoring in history. The course provides instruction in historical methods and criticism. Students select special topics for independent investigation. The topics are to be reported in writing and defended orally before the class.

HIST 451-52. Latin American History. (3-3) An examination of the general history of the Indian civilization through the Portuguese-Spanish Colonization of 1800; History 452 from 1800 to present—Revolution, independence, nationhood and world interdependence.

HIST 481-82. Asian Civilization. (3-3) An investigation of civilizations of China, Japan, Indian sub-continent and the Far East. History 481:—From the development of the classical period to western domination. History 482:—From the age of imperialism to the present (Korea, Southeast Asia, and other regions from 1600 to 1914. (See special offerings for recent history)

HIST 491-92. Afro-American History. (3-3) A study of the integral role and contributions of Afro-Americans to the history of the United States. History 491:—From the African beginnings to 1865; History 492:—From 1865 to the present (to 1920).

HIST 493. A Topical Approach to Afro-American History. (3) Special issues and problems, 1920 to present.

HIST 495. History of Southern Indians. (3) An investigation of the major native American Indian Tribes and Peoples that lived in areas South of the Ohio and east of the Mississippi River, 1492-1860.

HIST 496. History of Southeast Indians. (3) An intensive survey of Indians—native American Peoples in the South after their removal and of their integration and assimilation into the present American Pattern.

GEOGRAPHY (GEOG)

GEOG 171-172. World Regional Geography. (Formerly Elements of Geography.) (3-3) A systematic approach to the study of geographic regions of the world. Regional surveys include a special consideration of: Physical character of the land, resources, economics, and cultures. Designed to provide general education, especially for Education and Social Science majors.

GEOG 173-174. Elements of Physical Geography. (3-3) Study of weather and climate, flora and fauna; soils, landforms, mineral resources of value to man; major surface waters and ground water regions of value to man; and different types of coastlines. Cause and distribution of these elements is stressed, along with their impact on man. Included is a general geographic analysis of a selected area emphasizing these elements and their impact on society in the selected area. Especially for Business Administration and Natural Sciences majors.

GEOG 271-272. Economic Geography. (3-3) Emphasis on world distribution of economic and business activities, stressing factors of location and economic concepts of locational change.

GEOG 310. Cartography. (3) An introductory course in the nature and use of maps; the construction of map projections and their uses, the preparation and use of maps for various types of analysis. Lecture and laboratory work.

GEOG 333. Geography Field Trip. (3) A spring or summer excursion to selected areas. Library studies and a report required. Prerequisite: 3 semester-courses in geography and consent of instructor.

GEOG 351. Meteorology (Elements of Weather). (3) Properties and conditions of the atmosphere; instruments used in weather observation; emphasis upon applications.

GEOG 361. Principles of Geomorphology. (4) (See Geology 480).

GEOG 371. Geography of United States and Canada. (3) Recognition, analysis and interpretation of the basis physiographic features, resources, and human adjustments within its several regions.

GEOG 372. Geography of Caribbean America. (3) A regional analysis of the Caribbean area (Mexico, Central America, West Indies, and northern South America) with emphasis upon the physical, cultural and economic factors affecting man's use of his resources.

GEOG 373. Geography of South America. (3) Regions and resources of South America beyond the Caribbean area with a special study of the distinctive role of each country according to its geographic significance; problems of future development in each of the several regions will be emphasized.

GEOG 381. Geography of Europe. (3) A regional analysis of Europe, exclusive of the Soviet Union, designed to reveal the unique cultural, physical and economic character and problems of the several European Nations.

GEOG 382. Urban Geography. (3) A study of the city as a geographic unit; its functions and structures with particular reference to the urban growth pattern, socio-economic functions and problems, rural -urban relationships, and contemporary trends.

GEOG 391. Political Geography. (3) This course analyzes the structure and function of political regions with emphasis on the soverign state. Focus on sources of national strength, internal conflict, geopolitics as it relates to power, strategy, and international relationships among soverign countries. Emp. from recent developments and current situations.

GEOG 402. Geography of the South. (3) A regional study of Southeastern United States with emphasis on physical and human resources, settlement and population, agriculture, the extractive industries, transportation, and present urban settlements. Current progress and major problems in southeastern development.

GEOG 403. Geography of Tennessee. (3) A detailed study of Tennessee and its subdivision into natural and economic regions is to be emphasized.

GEOG 410. Geography of Asia. (3) (Formerly Middle East & India and Southeastern Asia, Australia 401). Regional analysis of cultural and physical geography of Asia including land utilization, settlement, raw material, population characteristics and distribution as each related to economic and political problems. Emphasis on Middle East, India, Pakistan, and Indo-China.

GEOG 412. Geography of Africa. (3) A study of the regions and resources of Africa with special consideration given to Africa south of the Sahara, its development and potential.

GEOG 415. Geography of Australia and Oceania. (3) A geographical analysis of the physical environment and cultural occupancy of the Australia, New Zealand and the Islands of Pacific.

GEOG 421. Geography of China. (3) Regions and resources of China, with special emphasis on differences and simularities of each cultural and physical region. The placing of China as a whole unit proper continental and world framework is the final objective.

GEOG 420. Geography of U.S.S.R. (3) A geographical analysis of the terrain, resources and economic development of the Union of Soviet Socialist Republic.

GEOG 425. Historical Geography of the U.S. and Canada. (3) The changing physical and cultural geography of Anglo-America during four centuries of settlement and development.

GEOG 430. Social Geography. (3) A study of the geographic perspectives crime, ghettoization, environmental deterioration, poverty, interurban mobility, class, population growth, riots and violence.

GEOG 462. Climatology. (3) Regional analysis of the world's weather and climate with emphasis on climatelogical processes and their geographical implications.

GEOG 492. Theory and Methodology. (3) The objectives of this course are to give students minoring in geography an historical as well as a contemporary background concerning men and their writing in geography; to integrate all phases of geography into seminar-type discussion; to introduce students to pertinent concepts and theories in order to broaden their fields of interest; to tie all periods of time to spatial phenomens; and to indicate geographical evolution.

GEOG 499. Special Problems. (3) Permission of the instructor. The purpose of this course is to help the student gain depth in selected areas of geography. This will be achieved by giving him the opportunity to become familiar with geographical literature, to read selected topics independently and to give oral and written reports on his readings. The course will involve the principle of research and scientific analysis.

THE HONORS PROGRAM

In the fall, 1964-1965, the Honors Program was begun for the four-year baccalaureate student; and in the fall, 1978-1979, a comparable program was established for the two-year associate degree student in the School of Nursing. The Honors Program is administered by a Director, who is assisted by an Advisory Committee. This committee is composed of two faculty members who teach Honors courses, two who teach colloquia, two who are selected at large, and one who represents the School of Nursing. The members serve on a rotating basis.

The basic premise of the Honors Program is that the academically superior student needs the challenge and the opportunity to achieve academic excellence. The Honors Program proposes to provide this challenge and this opportunity. Honors courses, which are restricted to students in the Honors Program and to those with a "B" average in their major who may be recommended by their department heads, are designed to require a higher level of achievement than those in the regular curriculum. These classes are small in size, thereby allowing for a close teacher-student relationship. Other courses from the regular curriculum which may be taken for Honors credit require additional assignments of those Honors students who are enrolled.

The basic premise resulted in the formulation of the following goals of the Honors Program:

1. To offer a program or programs designed to stimulate the gifted student and enable him to do a quality of work in keeping with his potential.
2. To identify the academically superior student in the University.
3. To publicize and emphasize the Honors Program.
4. To give proper guidance to the student in the Honors Program.
5. To advocate and to assist in the creation of an academic climate that will stimulate all students at the University to perform to their intellectual capacity.
6. To attract to the University those students whose educational records show evidence of superior intellectual ability.
7. To encourage the students in the Honors Program to participate in all of the various activities at the University.

Students are admitted to the University Honors Program in several ways. The Honors Office, particularly during the spring and the summer following the student's graduation from high school, obtains through the Office of Admissions and Records the student's performance on the American College Test (ACT) and his high school grade-point average. Dependent upon the student's composite score, and/or his high school academic record, and, for nursing students, the recommendation of the Admissions Committee for the School of Nursing, the Honors Office writes the student to invite him to participate in the Honors Program. Included with this letter is an application blank the student is asked to execute if he desires to become a member of the Program. He is also required to secure recommendations from two of his high school personnel: principal, counselor, teachers.

Admission to the Honors Program is made on the basis of the student's ACT score, and/or his high school record, and the recommendations as mentioned above. All students who are invited to participate in the Honors Program must, however, make separate application for admission to the University.

Baccalaureate students who are not invited to participate in the Honors Program as entering freshmen may be admitted later by recommendation of a university faculty member. Following receipt of such recommendations, the Honors Office invites all students so nominated to appear for an interview. Each student is ordinarily interviewed by two faculty members, whose evaluation of him, together with his grade-point average, will determine his acceptance. The latest point for a four-year student to enter the Honors Program is the first semester of his sophomore year.

Students who have not been invited to join the Honors Program but who are interested and feel that they can meet the entrance requirements should write to:

Dr. McDonald Williams, Director
Honors Program
Tennessee State University
NASHVILLE, TN 37203

When a student enters the Honors Program, he is advised by his major department and by the Honors Office. During his two or four years at the University, the Honors student will take courses both from the regular curriculum and from the offerings of the Honors Program. Ordinarily, the freshman and sophomore four-year students will take two Honors courses each semester, with Honors Freshman Composition and Honors World or American Literature being required. Further requirements are the colloquia—Junior and Senior. It is expected that the Junior and Senior Colloquia will fit into the student's schedule as "electives." A final requirement is the Honors senior thesis, which is to be defended before a committee, or a recital or the like for those students in the performing arts.

The two-year nursing students will take during their freshman year Honors Freshman Composition; and during their sophomore year they will take either the Junior or the Senior Colloquim and Nursing 212H for Honors credit. In Nursing 212H Honors students will write a paper dealing with some such subject as the ethical implications of nursing. This paper will be presented orally before a committee.

The Honors Program does not require additional courses beyond those required of other students. Four-year students admitted to the Program later than the first semester of their freshman year will be exempted from whatever requirements are expected prior to their entrance.

With the exception of the Honors Colloquia, grades awarded in Honors courses coincide with those given for courses in the regular curriculum. In the Colloquia, however, the grades are:

H Honor	4 quality points per semester hour
P Passing	3 quality points per semester hour

To remain in good standing in the Program, a student must maintain a minimum cumulative grade-point average of 3.0, based on all course work. A student may withdraw from the Program at any time, but he should first notify the Honors Office.

Also important in the retention of a student is the semestral evaluation of him by his Honors teachers, who determine whether he is of Honors calibre and whether he is working up to his potential.

In an effort to encourage Honors students to achieve academic excellence throughout their undergraduate years, the Honors Program annually sponsors an Honors Academic Awards Day. The awards—the recipients of which are determined by the Honors Advisory Committee—and their criteria are: the McDonald Williams Senior Award, the Prem S. Kahlon Junior Award, and the Joseph A. Payne Memorial Sophomore Award, each of which is based upon academic performance, personal qualities, and service both to the Honors Program and the University; the Washington Industries Awards, to all seniors and the outstanding junior, based upon requirements for the Program and cumulative average; the Junior-Senior Honors key, based upon cumulative average, hours in Honors courses, classification; and the Outstanding Freshman, Sophomore, Junior, and Senior Class Awards, based upon faculty recommendations, cumulative average, campus and other activities, campus

awards and recognition, membership in honor groups, grades in Honors courses, and contributions to the Honors Program. On Honors Awards Day, all students who are in good standing receive Certificates of Achievement, signed by the Director of the Program, the Vice-President for Academic Affairs, and the President of Tennessee State University.

Two-year and four-year students who complete the requirements of the Honors Program will, at commencement, be granted with "Associate Honors" and "University Honors," respectively.

These requirements include, for the two-year student:

1) Taking a minimum of 18 hours of Honors work
2) Writing and defending a paper growing out of Nursing 212H
3) Attaining a cumulative average of at least 3.25

For the four-year student:

1) Taking a minimum of 24 hours of Honors work, or 18 hours if the student enters during his sophomore year
2) Giving a recital or writing and defending a senior thesis. The student will select a topic for his Honors Thesis with the approval of his major adviser and instructor of the course. The topic may be related to his major field of interest or to a colloquium. Insofar as possible, advisers for the Honors thesis will be members of the Honors faculty. The student will select his topic in the Fall Semester of his senior year, complete his thesis by the beginning of the Spring Semester, and defend it before the Honors Advisory Committee and such other persons who may be invited to sit with the Committee.
3) Attaining a cumulative average of at least 3.25.

Students being graduated with "Associate Honors" or "University Honors" are distinguished in the academic procession by a scarlet and gold cord.

The Honors Office offers its assistance to Honors students as they make application for fellowships and for admittance to graduate school.

HONORS COURSES
Two-year Students

FRESHMAN YEAR Name of Course	SEMESTER Hours Credit I	 II
English 101-102H	3	3

SOPHOMORE YEAR Name of Course	SEMESTER Credit Hours I	 II
Senior Colloquium 400H	3	
or		
Junior Colloquium 300H		3
Nursing 212H		9

Four-year Students

FRESHMAN YEAR Name of Course	SEMESTER Credit Hours I	 II
Orientation 100H	1	
English 101-102H	3	3
Biology 111-112H	4	4
Mathematics 111-112H	3	3
Theatre 120H	2	
Bio-Physical Sciences 121-122H	3	3
Chemistry 121-122H	4	4
History 121-122H	3	3
Art 133H		2
History 201-202H	3	3
Govt. Pub. Affairs 221H		3

SOPHOMORE YEAR Name of Course	SEMESTER Credit Hours I	 II
Education 201H	3	
English 211-212H	3	3
Sociology 211H	3	
Speech 220H	3	
Psychology 242H		3
English 310H	2	

JUNIOR YEAR Name of Course	SEMESTER Credit Hours I	 II
Junior Colloquium 300H		3
Sociology 300H	3	
English 361-362H	3	3
Education 387H	3	

SENIOR YEAR Name of Course	SEMESTER Credit Hours I	 II
Honors Senior Colloquium 400H	3	
Honors Senior Thesis 410H	3	
Honors Sociology 451H		3
Honors Clothing and Textiles 462H		3
Honors Foods and Nutrition 462H	3	
Honors Child Development and Family Relationships 467H	3	
Honors Home Economics Education 474H		3
Honors Social Welfare 480H		3
Honors Sociology 490H	3	

The current offerings of the Honors Program are as follows:

HP 100H. Honors Orientation. (1) A course designed to assist the freshman student in his adjustment to college life in the areas of learning, educational and vocational planning, and interpersonal relations. Offered in fall semester. One lecture per week.

ENG 101-102H. Honors Freshman English. (6) An Honors course in Freshman English designed for students with special competence in English to work at an advanced level. Class enrollment is limited and restricted to students notified as having qualified for the English Honors section.

BIO 111-112H. Honors Animal Biology. (8) A course designed for students of exceptional caliber. Emphasis placed on individual critical and original thinking based on recent research findings dealing with animal biologic principles. As such the student will be expected to do extensive reading of literature, make special reports, and participate in guided discussions. Laboratory problems are so designed as to challenge the ingenuity and creativity of the student. Lecture: 2 credits; Laboratory: 2 credits per semester.

MATH 111-112H. Introduction to College Mathematics I and II (6) A review of fundamental operations of algebra and arithmetic: linear and quadratic equations, trigonometry, probability and statistics. This sequence will consider the more theoretical aspects of each of the above topics. The course is intended for students enrolled in the University Honors Program. Prerequisite for Math 112H is 111H.

THEA 120H. Appreciation of Drama. (2) Introduction to dramatic principles through the study of major periods and representative plays from the Greek period to the present.

SCI 121-122H. Honors Introduction to Bio-Physical Sciences. (6) An interdisciplinary course involving the principles of mathematics, chemistry, physics and biology. The objective of the course is to integrate the applicable areas as they are related to living organisms. Lecture: 2 credits; Laboratory: 1 credit per semester.

CHEM 121-122H. Honors Chemistry. (8) Lectures deal with the basic theories of chemistry: atomic structure, kinetic theory, chemical stoichiometry, the chemical bond, oxidation-reduction, solutions, and chemical equilibrium. Examples may be taken from all fields of chemistry and its applications. Laboratory during the second semester is devoted to analysis, including quantitative anion and cation analysis, with an introduction to quantitative analysis. A good mathematical background is required.

HIST 121-122H. Honors Growth of Civilization (1500-present) (6) The major social, economic, political, religious, and intellectual developments in European history from medieval times to the Age of Metternich. History 122 is the continuation of 121.

ART 133H. Honors Art Appreciation. (2) A comprehensive survey of the art of prehistory: Egypt, Greece, Rome, and the Romanesque and Gothic periods; the art of the Renaissance: Baroque and Rococo periods. Emphasis is on comparing these periods historically, as well as stylistically.

EDUC 201H. Honors Foundations of Education. (3) This course is designed to challenge the abilities of exceptional students toward a clear understanding of the historical, philosophical and sociological aspects of education and how these areas of education have relevancy to the work of contemporary schools. The method will include presentation of basic theoretical and methodological principles essential to the investigation and solution of problems of education. Emphasis will be placed on aiding and encouraging creative thinking.

HIST 201-202H. Honors American History. (6) An intensive and extensive study of American history from pre-European period to present. Great emphasis is placed upon oral and written exercises. These courses are open to students with recognized high potential and academic rating. This course is in lieu of History 201, 202 for those qualified.

ENG 211-212H. Honors World Literature. (6) An analytical reading of selected poetry, prose, and drama from the nations of the world. The subject matter for both semesters is arranged chronologically, with that of the first ranging from the Ancient Chinese through the Renaissance; and that of the second, from the Age of Classicism and Reason to the 20th Century.

SOC 211H. Honors Introduction to Sociology. (3) This course presents to students a comprehensive study of social thought, concepts and social change. Students are expected to analyze and interpret man in society and man in culture. The coures in designed to give the student a basic understanding of himself in relationship to others.

NURS 212H. Advanced Nursing II. (9) Nursing care of the adult and child in situations requiring the multidisciplinary approach and continuity of care. The course includes the care of the ambulatory patient, emergency and disaster nursing, communicable diseases, and the care of the patient with cancer. Honors students will write a paper to be presented orally. Prerequisites: MCRB 250 and NURS 211.

SPCH 220H. Honors Public Speaking. (3) A study of the principles of speech composition and delivery with emphasis upon the preparing and presenting of the various forms of oral communication.

GPA 221H. Honors American National Government. (3) This is an introductory course which deals with the foundation, organization, principles, and behavior of the national government. Attention is also focused on the relations of citizens to the government, and on the rights, obligations, and political behavior of Americans. Topics covered include institutional descriptions; public opinion; political participational recruitment; interest groups; parties; legislative, judicial, and executive behavior; public policy; and democratic theory. There are no prerequisites.

PSY 242H. Honors Human Growth and Learning. (3) A critical examination of the physiological, psychological, emotional, sociological development of the human organism from conception through senescence, and a study of the relationship between growth and learning. The learning process will emphasize the modified case study approach in the analyzation of the stages of growth and development, individual and group interest projects, seminars, and examination of contemporary research and related experiences.

HP 300H. Honors Junior Colloquium. (3) Lectures, discussions, and student writing based upon a central theme—such as "The Twentieth Century"—which may vary from year to year. Original work and interpretations and adaptations of original works are bases for discussions. The faculty member who conducts the colloquium may invite outside experts to participate when he or she deems it advisable.

SOC 300H. Honors Social Statistics. (3) A course designed to introduce sociology and social welfare majors to simple statistical methods using social data. Emphasis is placed on learning to interpret and construct tables, charts, and graphs, using social survey data, census materials, and other governmental reports involving social data.

ENG 310H. Honors Technical Report Writing. (2) A study of the fundamentals of written reports required in modern engineering (310E), with emphasis on grammar, sentence structure, and style, as well as on specialized techniques.

ENG 361H. Honors American Literature of the Nineteenth Century. (3) A study of major American writers and literary movements, including such writers as Emerson, Thoreau, Hawthorne, Twain and Crane, and such movements as romanticism, transcendentalism, realism, and naturalism.

ENG 362H. Honors American Literature of the Twentieth Century. (3) A study of literary trends in the present century, with emphasis on such major figures as Dreiser, Frost, Eliot, Faulkner, Fitzgerald, Ellison, Lowell, Baldwin, and Bellow.

ED 387H. Honors Curriculum Development. (3) The course is designed (1) to give students an opportunity to critically study the major stages of development of the school curriculum in public education in the United States; (2) to study in depth those forces and factors in our culture which have brought about major changes in the structure, content and methodology in public education; (3) to participate in elementary research through interpretation of available data bearing on curriculum revision and; (4) to give practice in identifying and discussing current issues, problems, practices, innovations, and trends in the total area of the development of curriculum theory.

HP 400H. Honors Senior Colloquium. (3) Lectures, discussions, and student writing based upon a central theme—such as "The Black Experience"—which may vary from year to year. Original work and interpretations and adaptations of original works are bases for discussions. The faculty member who conducts the colloquium may invite outside experts to participate when he or she deems it advisable.

HP 410H. Honors Senior Thesis. (3) The student will be allowed freedom of choice in selecting a topic for his Honors thesis. The topic may, for example, be related to his major field of interest or to a colloquium. His choice must, however, be approved by the Honors Advisory Committee. Insofar as possible, advisors for the Honors thesis will be members of the Honors faculty. The student will select his topic in the Fall Semester of his senior year, complete his thesis by the beginning of the Spring Semester, and defend it before the Honors Advisory Committee and such other persons who may be invited to sit with the Committee.

SOC 451H. Honors Introduction to Social Research. (3) A study of the theory and methods of social research, including the structure, and use of the questionnaire, the schedule, the interview, case histories, sociograms sampling, etc.

CLT 462H. Honors Clothing and Textiles. (3) An intensive study of the sociopsychological, technological, and anthropological aspects of clothing and textiles.

NTR 462H. Honors Foods and Nutrition. (3) Directed study and investigation involving techniques used in nutrition research.

CDFR 467H. Honors Child Development and Family Relationships. (3) An intensive investigation of a special area in Child Development or Family Relationships. Open to advanced juniors and seniors showing special ability in CDFR and to students enrolled in the University Honors Program.

HEEd 474H. Honors Home Economics Education. (3) Directed study and investigation based on Theoretical Principles, Philosophy, and Research in Home Economics Education.

SW 480H. Honors Social Welfare. (3) An opportunity for students through seminar and field trip experiences to examine more analytically current social problems such as health, income maintenance, social relationships, etc., that are related to the social work profession and the social welfare system. Students will independently study a specific problem area of interest and are required to submit a senior essay. Limited to students with a 3.0 average. Prerequisites 330,331, and 340.

SOC 490H. Honors History of Sociological Theory. (3) Major sociological theories as represented by Comte, Spencer, Durkeim, Weber, Simmel, et al., including those of the contemporary period.

DEPARTMENT OF MODERN FOREIGN LANGUAGES

DR. ELLIOTT (Head)

The offerings of the Department of Modern Foreign Languages are designed to meet the needs of those who are (1) preparing for careers as secondary teachers of foreign languages, (2) desiring positions in business, industry or government, (3) planning to attend graduate school, or (4) satisfying degree requirements for other departments of the university.

The curricula encompasses courses leading to the Bachelor of Arts degree in Foreign Languages, with options in French or Spanish with or without certification, a joint options in French or Spanish and Accounting, Business Administration or Office Administration, and Latin American Area Studies. An interdisciplinary program, leading to the Bachelor of Science degree in Arts and Sciences, is also available to students who follow the degree requirements listed under the heading, "General Degree Program."

"C" is the lowest acceptable grade for the departmental major and minors in any required foreign language course: courses in which majors or minors receive "D" or below must be repeated. Moreover, a student in the certification program is required to maintain an average of 2.25 in the major courses.

The department offers a minor in French, Spanish, German or Russian.

ALL ELEMENTARY AND INTERMEDIATE COURSES MUST BE TAKEN IN SEQUENCE.

A. French or Spanish option with Certification

A student who elects an option in French or Spanish, in addition to the Teacher Education professional core requirements, must complete a minimum of twenty-five hours in courses numbered above 202 in the target language to include 300, 301-02, 311-12, 400, 401, 410, and 450. It is desirable that the student complete a minor in a second foreign language.

B. French or Spanish option without Certification

A student who chooses an option in French or Spanish must complete a minimum of thirty hours in the target language in courses numbered above 202 to include 300, 301-02, 311-12, 400, 401-02, 410, 420, and 450. It is desirable that the student complete a minor, preferably in a second foreign language.

C. French or Spanish and Business Areas

Required courses in a foreign language are 101-02, 201-02, 300, 301-02, 400, 420, 450, and 480. The business core includes BA 101, 323-24, 335; ACCTG 211-212, ECON 211-12, ENG 301. Other courses

needed to satisfy degree requirements in Accounting, Business Administration, or Office Administration are as follows:

1. Accounting 211-12, 313-14, 320, 400, 411, 413 or 418.
2. Business Administration
   BA 301 or 302, 331, 423, 441; ECON 301, 315
3. Office Administration
   OA 121-122; 207-8, 310, 330, 430; BA 423

D. Latin American Area Studies

The required courses inSpanish are 101-02, 201-02, 300, 301-02, 400, 401-02, 410, 420, and 450. A minor concentration in Government and Public Affairs will be completed along with appropriate courses in Economics, Geography and History.

E. French, German, Russian or Spanish Minor

For students who are in the Teacher Education Program, the courses required are 101-02, 201-02, and any three courses above the 200 level. In addition to the requirements just outlined, students who are not in the certification program should also complete one additional course above the 200 level.

F. Honor Societies

1. Eta Sigma Chapter of Alpha Mu Gamma, National Foriegn Language Honor Society welcomes into membership qualified lower level students in French, German and Spanish.
2. Beta Omicron Chapter of Phi Delta Phi, National French Honor Society for outstanding students in upper level French.
3. Gamma Eta Chapter of Sigma Delta Pi, National Spanish Honor Society for students who excel in upper level Spanish.

CURRICULUMS FOR INTERDISCIPLINARY OPTIONS IN FRENCH OR SPANISH AND ACCOUNTING, BUSINESS ADMINISTRATION OR OFFICE ADMINISTRATION
A. FRENCH OR SPANISH AND ACCOUNTING

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
FOR LANG 101-2	4	4	FOR LANG 201-2	3	3
ENG 101-2	3	3	FOR LANG 300		2
MATH 111-112	4	3	SCI	3	3
BA 101-2	3	3	ENG 211-12	3	3
ORIENTATION	1		ACCTG 211-12	4	4
ART 133		2	HIST 201-2	3	3
PE or AIR SCIENCE	1	1	MUS 131	2	
	16	16		18	18

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
FOR LANG 301-2	3	3	FOR LANG 400	3	
ECON 211-12	3	3	FOR LANG 450	3	
ACCTG 311-12	3	3	FOR LANG 480		3
ENG 301; BA 335	2	3	FOR LANG 420		2
BA 323-24	3	3	ACCTG 313-14	3	3
ACCTG 320, 400	3	3	ACCTG 411, 413, or 418	3	3
	17	18	PHIL	2	
			Electives	3	3-6
				17	14-17

CURRICULUMS FOR INTERDISCIPLINARY OPTIONS IN FRENCH OR SPANISH AND ACCOUNTING, BUSINESS ADMINISTRATION OR OFFICE ADMINISTRATION
B. FRENCH OR SPANISH AND BUSINESS ADMINISTRATION

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
FOR LANG 101-2	4	4	FOR LANG 201-2	3	3
ENG 101-2	3	3	FOR LANG 300		2
MATH 111-12	4	3	SCI	3	3
BA 101-2	3	3	ENG 211-12	3	3
ORIENTATION	1		HIST 201-2	3	3
ART 133		2	ECON 211-12	3	3
PE or Air Science	1	1	MUS 131	2	
	16	16		17	17

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
FOR LANG 301-2	3	3	FOR LANG 400	3	
ACCTG 211-12	4	4	FOR LANG 450	3	
ENG 301; BA 335	2	3	FOR LANG 480		3
ECON 301, 315	3	3	FOR LANG 420		2
BA 301 or 2, 331	3	3	BA 323-24	3	3
PHIL		2	BA 423; 441	3	3
Elective (300-400)	3		Electives (300-400)	3	6
	18	18		15	17

C. FRENCH OR SPANISH AND OFFICE ADMINISTRATION

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
FOR LANG 101-2	4	4	FOR LANG 201-2	3	3
ENG 101-2	3	3	FOR LANG 300		2
MATH 111; 173	4	3	ENG 211-212	3	3
BA 101	3		SCI 111-112	3	3
ORIENTATION	1		OA 121-122	3	3
ART 133		2	ECON 211-212	3	3
HIST 201		3	HIST 202	3	
PE or Air Science	1	1	MUS 131		2
	16	16		18	19

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
FOR LANG 301-2	3	3	FOR LANG 400	3	
ACCTG 211-212	4	4	FOR LANG 420		2
OA 207-8	3	3	FOR LANG 450	3	
ENG 301; BA 335	2	3	FOR LANG 480		3
OA 310; 330	3	3	BA 423		3
BA 323-24	3	3	OA 430	3	3
			Electives (300-400)		
			Humanities and OA or BA	9	6
	18	19		18	17

CURRICULUM IN FRENCH (With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
FR 101-2	4	4
ENG 101-2	3	3
HIST 201-2	3	3
MATH 111	4	
ED 201		3
ORIENTATION 100	1	
HLTH or NUT		2
ART 133		2
PE or Air Science	1	1
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
FR 201-2	3	3
FR 300		2
ENG 211-2	3	3
SCI	3	3
Minor or Electives	3	3
PSY 242	3	
MUS 131		2
PE or Air Science	1	1
	16	17

JUNIOR YEAR	Credit Hours Fall	Spring
FR 301-2	3	3
FR 311-12	3	3
FR 400	3	
ED 301	3	
PSY 312		3
Minor or Electives	3	3
Minor or Electives 300-400		3
GEOG 172	3	
ED 465		3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
FR 401	3	
FR 410	3	
FR 450	3	
ED 387	3	
Minor or Electives 300-400	6	
MFL 371		3
ED 491		3
ED 472S		9
	18	15

CURRICULUM IN SPANISH (With Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
SPAN 101-2	4	4
ENG 101-2	3	3
HIST 201-2	3	3
MATH 111	4	
ED 201		3
ORIENTATION 100	1	
HLTH or NUT		2
ART 133		2
PE or Air Science	1	1
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
SPAN 201-2	3	3
SPAN 300		2
ENG 211-2	3	3
SCI	3	3
Minor or Electives	3	3
PSY 242	3	
MUS 131		2
PE or Air Science	1	1
	16	17

JUNIOR YEAR	Credit Hours Fall	Spring
SPAN 301-2	3	3
SPAN 311-12	3	3
SPAN 400	3	
ED 301	3	
PSY 312		3
Minor or Electives	3	3
Minor or Electives 300-400		3
GEOG 172	3	
ED 465		3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
SPAN 401	3	
SPAN 410	3	
SPAN 450	3	
ED 387	3	
Minor or Electives 300-400	3	
Minor or Electives 300-400	3	
MFL 371		3
ED 491		3
ED 472S		9
	18	15

CURRICULUM IN FRENCH (Without Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
FR 101-2	4	4
ENG 101-2	3	3
HIST 201-2	3	3
MATH 111	4	
ED 201		3
ORIENTATION 100	1	
HLTH or NUT		2
ART 133		2
PE or Air Science	1	1
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
FR 201-2	3	3
FR 300		2
ENG 211-12	3	3
SCI	3	3
PSY 242	3	
Minor or Electives	3	3
MUS 131		2
PE or Air Science	1	1
	16	17

JUNIOR YEAR	Credit Hours Fall	Spring
FR 301-2	3	3
FR 311-12	3	3
FR 400	3	
Minor or Electives	3	3
Minor or Electives 300-400		3
Electives (300-400 Humanities and Social Sciences)	6	6
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
FR 401-2	3	3
FR 410-20	3	2
FR 450	3	
Minor or Electives 300-400	3	3
Minor or Electives 300-400	3	3
Electives (300-400)	3	4-6
	18	15-17

CURRICULUM IN SPANISH (Without Teacher Certification)

FRESHMAN YEAR	Credit Hours Fall	Spring
SPAN 101-2	4	4
ENG 101-2	3	3
HIST 201-2	3	3
MATH 111	4	
ED 201		3
ORIENTATION	1	
HLTH or NUT		2
ART 133		2
PE or Air Science	1	1
	16	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
SPAN 201-2	3	3
SPAN 300		2
ENG 211-12	3	3
SCIENCE	3	3
PSY 242	3	
Minor or Electives	3	3
MUS 131		2
PE or Air Science	1	1
	16	17

JUNIOR YEAR	Credit Hours Fall	Spring
SPAN 301-2	3	3
SPAN 311-12	3	3
SPAN 400	3	
Minor or Electives	3	3
Minor or Electives 300-400		3
Electives (300-400 Humanities and Social Sciences)	6	6
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
SPAN 401-2	3	2
SPAN 410-20	3	2
SPAN 450	3	
Minor or Electives 300-400	3	3
Minor or Electives 300-400	3	3
Electives (300-400)	3	4-6
	18	14-16

CURRICULUM IN LATIN AMERICAN AREA STUDIES

FRESHMAN YEAR	Credit Hours Fall	Spring
SPAN 101, 102	4	4
GPA 100, 221	3	3
MATH 111, 112	4	3
PE or AFROTC	1	1
ENG 101-102	3	3
ART, MUS, DRAMA, PHIL		2
Orientation 101	1	
	16	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
SPAN 201, 202	3	3
SPAN 300		2
SCI, BIO, CHEM	4	4
PE or AFROTC	1	1
ENG 211, 212	3	3
HIST 201, 202	3	3
SOC 320	3	
ART, MUS, SPCH, PHIL		2
	17	18

JUNIOR YEAR	Credit Hours Fall	Spring
SPAN 301, 302	3	3
SPAN 400	3	
GPA 331, 332	3	3
HIST 451, 452	3	3
GEOG 372, 373	3	3
ECON 211, 212	3	3
Elective (300 or 400)		3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
SPAN 401, 402	3	3
GPA 341, 367	3	3
SPAN 410, 420	3	2
MFL 450	3	
ECON 405	3	
Electives (300 or 400)	3	6
	18	14

FOREIGN LANGUAGES

FRENCH

Elementary French 101-102 (1110, 1120, 1130). (4,4) The development of the ability to understand, speak, write and read French. Laboratory work is an integral part of the course.

Intermediate French 201-202 (2110, 2120, 2130). (3,3) Grammar review and further development of the ability to understand, speak, write and read French, reinforced with laboratory work. Prerequisites: 101-102 or the equivalent.

French Civilization 400 (3110). (3) The development of French civilization from its origin to the present: geography, historical, political, social, economic and cultural life.

Pronunciation and Diction 300 (3410). (2) The development of good articulatory habits through perception and imitation of French sounds, with secondary emphasis on theoretical knowledge of the phonetic symbols. Prerequisite: French 201.

Advanced Oral and Written Composition 301-302 (3420-3430). (3,3) Vocabulary building and intensive analysis of French grammar with practical application in oral and written compositions. Prerequisite: French 202.

Survey of French Literature 311 (3810). (3) Literary philosophies, types, major authors and their contributions. Middle Ages through the Eighteenth Century. Prerequisite: French 202.

Survey of French Literature 312 (3820-3830). (3) Literary philosophies, types, major authors and their contributions. The Nineteenth and Twentieth Centuries. Prerequisite: French 202.

French Literature of the Twentieth Century 425-426 (4710, 4720, 4730). (3,3) Prose, poetry, theatre, criticism, their theories and trends, from the Symbolist movement to contemporary period. Prerequisite: French 400.

Foreign Language Pronunciation and Diction 320. (3) Basic rudiments of the sound systems in three or four languages.

Methods of Teaching Foreign Languages 371. (3) This course acquaints the student with methods, materials, and texts. Bi-weekly classroom observations in secondary schools of the community are required. Prerequisite for those who wish to obtain teacher certification.

French Conversation 401-402. (3,3) Intensive conversational practice with group discussion and laboratory drills on selected topics. Analysis and correction of individual problems. Prerequisite: French 202.

Black French Writers: Past and Present 410. (3) An introduction to the works of various Black authors of French expression, with emphasis on Alexandre Dumas, Rene Maran, Leon Damas, Alme Cesaire, Leopold Senghor and Frantz Fanon.

Introduction to Explication De Textes 420. (3) Designed to acquaint the student with the French approach to analyzing poetry and prose.

Senior Project 450. (3) Individual research and project writing.

Commercial French 480. (3) Designed to train students to write effective business letters in correct styles and language. Prerequisite: French 302.

GERMAN

Elementary German 101-102 (1110, 1120, 1130). (4, 4) Aims to develop the ability to speak, understand, write, and read simple German. A functional vocabulary is built up and the essentials of grammar are stressed. Laboratory work is included in this course. It is also supplemented with graded reading.

Intermediate German 201-202 (2110, 2120, 2130). (3,3) Consists ofiintensive and extensive reading of graded German works (literary and scientific). Fluency and accuracy of comprehension are the primary objectives. Prerequisite: German 101-102.

Survey of German Literature 311-312 (3110, 3120, 3130). (3,3) Consists of selected readings to acquaint the student with outstanding writers, ideas and movements from the eleventh century to the present.

Foreign Language Pronunciation and Diction 320. (3) Basic rudiments of the sound system in three to four languages.

RUSSIAN

Elementary Russian 101-102 (1110, 1120, 1130). (4,4) Sounds and structure of the language. Acquisition of hearing, speaking, reading and writing skills. Acquaintance with Russian and Russian life.

Intermediate Russian 201-202 (2110, 2120, 2130). (3,3) Progress in hearing, speaking, reading, and writing skills. Systematic review of grammar. Acquaintance with Russian history and culture. Gradual introduction to literature. Prerequisite: 101-102.

Introduction to Russian Literature 311-312 (3110, 3120, 3130). (3,3) A survey of Russian literature and culture from its beginnings to the present. Historical and literary highlights, principal authors' artistic development and social orientation. Evaluation of important works, analysis and criticism of selected passages in prose, poetry, and threatre. Prerequisite: 201-202.

Foreign Language Pronunciation and Diction 320. (3) Basic rudiments of the sound system in three to four languages.

Elementary Spanish 101-102 (1110, 1120, 1130). (4,4) The development of the ability to understand, speak, write, and read Spanish. Laboratory is an integral part of this course.

Intermediate Spanish 201-202 (2110, 2120, 2130). (3,3) Grammar review and further development of the ability to understand, speak, write, and read Spanish, reinforced with laboratory work. Prerequisite: 101-102.

Hispanic Civilization 400 (3110, 3120, 3130). (3) This history and development of Spain and Spanish-American civilization, culture, and institutions.

Survey of Spanish Literature 311 (3110). (3) Literary philosophies, types, major authors and their contributions from the earliest extant works through the sixteenth century. Prerequisite: 202.

Survey of Spanish Literature 312 (3120-3130). (3) Literary philosophies, types, major authors and their contributions from the seventeenth century through the contemporary period.

Readings in Spanish-American Literature 410. (3310, 3120, 3130). (3) Involves selected readings to give the student a panoramic view of representative authors, works, and movements from the colonial period to the present.

Pronunciation and Diction 300 (4210). (2) The development of good articulatory habits through perception, imitation, and intensive drill with secondary emphasis on theory and phonetic symbols. Prerequisite: 201-202.

Advanced Oral and Written Composition 301-302. (4220-4230). (3,3) Vocabulary building and intensive analysis of Spanish with practical application in oral and written compositions. Prerequisite: 202.

Spanish Literature of the Nineteenth Century 421-422 (4510, 4520, 4530). (2) Principal literary movements and cultural highlights studied by analysis of the most representative authors of the period. Prerequisite: Spanish 400.

Spanish Literature of the Twentieth Century 425-426 (4710, 4720, 4730). (3) Reading and analysis of the works of the "Generación del '98" and of the post-war generation. Comprehensive study of all literary genres, especially of the novel and lyric poetry. Prerequisite: Spanish 400.

Foreign Language Pronunciation and Diction 320. (3) Basic rudiments of the sound systems in three to four languages.

Methods of Teaching Foreign Languages 371. (3) This course acquaints the student with methods, materials, and texts. Bi-weekly classroom observations in secondary schools of the community are required. Prerequisite for those who wish to obtain teacher certification.

Spanish Conversation 401-402. (3) Intensive conversational practice with group discussions and drills on selected topics. Analysis and correction of individual problems. Prerequisite: Spanish 203.

Applied Stylistics 420. (2) An intensive course in composition to aid the student in developing an individual style of writing in the Spanish language. Prerequisite: Spanish 302.

Senior Project 450. (3) Individual research and project writing.

Commerical Spanish 480. (3) Designed to train students to write effective business letters in correct styles and language. Prerequisite: Spanish 302.

Independent Study 470. 1 to 3 hours per semester.

DEPARTMENT OF MUSIC

DR. LEWIS (Head)

The Department of Music is organized to serve the State's music education structure through teacher education, leadership, and statewide cooperation; to provide sound guidance and thorough training for the gifted student whose career goal is professional music; and to bring the gift of music in exhibits, lecture demonstrations, concert offerings, and participation opportunities to all its people, as its contribution to the cultural enrichment of the campus, the community, and the state.

The courses are designed to provide experiences leading to general culture, a mastery of fundamental tools, adequate performance ability, and for those seeking certification in the area of music, the science and art of teaching.

The Department of Music holds full membership in the National Association of Schools of Music. The Department offers undergraduate programs in music leading to the Bachelor of Science degree in music with or without certification. The minimum number of semester hours required for the Bachelor of Science degree is 132. Minimum number of semester hours required in music courses is 53 for the Bachelor of Science degree.

The minimum number of semester hours in 300-400 level courses is 60 for all bachelor degree programs.

Applied Music

Applied music is defined as individual instruction and preparation in voice and the various instruments. Courses are offered in voice, piano, organ, violin, viola, violincello, string bass, flute, oboe, clarinet, basson, saxophone, French horn, cornet (trumpet), trombone, tuba and the percussion instruments. Each student must delcare a major applied area of performance and must concentrate in this area for the equivalent of four years, and must present a senior recital during the senior year. It is expected that each student will make appearances on seminars and student recitals during the sophomore and junior years. For all students majoring in some instrument other than piano, it is expected that piano will be the minor performance area. In most instances the choice of the major applied area and curriculum will be governed by the proficiency that the student has achieved prior to entering the University.

Ensembles

Membership in music ensemble groups is open to all students of the University who quality for admission and participation. Each music major

is required to participate in a major ensemble group for the entire four years of his matriculation. Membership is not limited to one ensemble, but instrumental majors must participate in University Band and Vocal majors must participate in University Choir. One credit per semester quarter is offered for each group.

The following ensembles are offered: University Choir, University Band, Brass Choir, Stage Band, and String Ensemble. These groups are organized to study and perform the standard repertoire for various combinations of voices of instruments.

Concerts and Recitals

Organized music groups, small ensemble groups, faculty and student soloists offer concerts and recitals frequently in the Recital Hall. These are open to the public without charge, and students are particularly encouraged to attend.

Degree Programs

The Department of Music offers three curricula leading to the Bachelor of Science degree in Music. The first of these is the degree without certification, for those with career goals other than teaching. The other two programs lead to certification in the areas of vocal or instrumental music.

CURRICULUM FOR A MAJOR IN MUSIC WITHOUT CERTIFICATION

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
HIST 201, 202	3	3
MUS 120, 121	4	4
MAJ APPLIED	2	2
MAJ ENSEMBLE	1	1
MATH 111, 112	4	3
PE or AFROTC	1	1
	18	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
MAJ APPLIED	2	2
MAJ ENSEMBLE	1	1
MUS 220, 221	3	3
SCI	3	3
WW or BRASS CLASS	1	1
FOR LANGUAGE	4	4
PE or AFROTC	1	1
	18	18

JUNIOR YEAR	Credit Hours Fall	Spring
MUS 337, 338	3	3
MUS 305, 430	3	3
MAJ APPLIED (300 level)	2	2
MAJ ENSEMBLE (300 level)	1	1
MUS 331, 320	3	3
FOR LANGUAGE	3	3
HUMANITIES Elective (300 level)	3	3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
MUS 420, 421	3	3
HLTH		2
MAJ APPLIED (400 level)	2	2
HUMANITIES ELECTIVES (300-400 level)	12	6
Electives (300-400 level)		3
	17	16

Electives in Music:
Music 428—Physics of Music—3 sem hrs
Music 433—Composition—3 sem hrs
Music 434—Seminar in Jazz—3 sem hrs

CURRICULUM FOR MAJOR IN MUSIC WITH CERTIFICATION
(Vocal and Instrumental Concentration)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
HIST 201, 202	3	3
MUS 120, 121	4	4
INSTR TECH	1	
MUS 11A, 11B	1	1
MAJ APPLIED	2	2
MAJ ENSEMBLE	1	1
PE or AFROTC	1	1
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
EDU 201, PSY 242	3	3
SCI	3	3
MUS 220, 221	3	3
MUS 21A, 21B	1	1
MAJ APPLIED	2	2
MAJ ENSEMBLE	1	1
PE or AFROTC	1	1
MUS 313	1	
	18	17

JUNIOR YEAR	Credit Hours Fall	Spring
ED 301, 465	3	3
ART 133	2	
MUS 337; 320	3	3
MUS 305; 371A	3	3
MUS 312; 328	1	3
MUS 331; 430	3	3
MAJ APPLIED (300 level)	2	2
MAJ ENSEMBLE (300 level)	1	1
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
HLTH	2	
MATH 111	4	
PSY 312	3	
MUS 311; 421	1	3
MUS 451	2	
MUS 420	2	
MUS 371B or C		3
ED 491		3
ED 472		9
MAJ APPLIED (400 level)	2	
MAJ ENSEMBLE (400 level)	1	
	17	18

CURRICULUM FOR MAJOR IN MUSIC WITH CERTIFICATION
(Piano Concentration)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
HIST 201, 202	3	3
MUS 120, 121	4	4
INSTR TECH	1	1
MUS 11A, 11B	2	2
MAJ ENSEMBLE	1	1
PE or AFROTC	1	1
	15	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
ED 201; PSY 242	3	3
SCI	3	3
MUS 220, 221	3	3
MUS 21A, 21B	2	2
MAJ ENSEMBLE	1	1
PE or AFROTC	1	1
HLTH, MUS 311	2	1
	18	17

JUNIOR YEAR	Credit Hours Fall	Spring
ED 301; 465	3	3
ART 133	2	
MUS 337; 320	3	3
MUS 305; 371A	3	3
MUS 312; 338	1	3
MUS 31A, 31B	2	2
MUS 331; 430	3	3
MAJ ENSEMBLE (300 level)	1	1
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
SOC SCI	3	
MATH 111	4	
PSY 312	3	
MUS 41A	2	
MUS 451; 371C	2	3
MUS 420; 421	3	3
MAJ ENSEMBLE (400 level)	1	
ED 491		3
ED 472		9
	18	18

COURSE OFFERINGS

MUSIC (MUS)
APPLIED MUSIC COURSES

The laboratory fees, unless otherwise stated, are for each semester.

MUS 11A, B First Year Piano. (1 or 2-1 or 2) Some of the easier works of Bach, Haydn, Mozart, Beethoven, and others whose works are of equivalent technical value together with purely technical materials including all majors and minor scales. Prerequisite: Permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00

MUS 21A, B Second Year Piano. (1 or 2-1 or 2) Selected works Bach, and other composers. Prerequisite: Permission from the Office of the Music Department, and Piano 11C. Two one-half hour periods. Laboratory fee $15.00.

MUS 31A, B Third Year Piano. (2-2) Larger compositions, and other exacting materials requiring excellent musicianship, skills and techniques are used. Prerequisite: Music 21C. Two one-half hour periods. Laboratory fee $15.00.

MUS 41A, B Fourth Year Piano. (4) The study of advanced piano materials. Prerequisite: Music 41C. Two one-half hour periods. Laboratory fee $15.00.

MUS 12A, B First Year Organ. (4) Pedal studies, major and minor scales, legato studies, little preludes and fugues of Bach, trios by Stainer Rheinberger, and others, and selected books of Guilmant, Mendelssohn and other reputable composers. Prerequisite: The highest non-credit level of piano 10, and permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 22A, B Second Year Organ. (4) Advanced pedal studies and scales. Prerequisite: Music 12C. Two one-half hour periods. Laboratory fee $15.00.

MUS 32A, B Third Year Organ. (4) A continuation of pedal studies and scales in addition to the Toccate and Fugue in D Minor, and other major works, some from modern composers. Prerequisite: Music 22C. Two one-half hour periods. Laboratory fee $15.00.

MUS 42A, B Fourth Year Organ. (4) A continuation of Music 32C with special emphasis on representative works from the various schools of composition including 20th Century composers. Two one-half hour periods. Laboratory fee $15.00.

MUS 13A, B First Year Violin. (4) Instruction with standard elementary violin or viola materials. Prerequisite: Permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 23A, B Second Year Violin or Viola. (4) Instruction with standard elementary violin or viola materials. Prerequisite: Music 13C. Two one-half hour periods. Laboratory fee $15.00.

MUS 33A, B Advanced Violin or Viola. MUS 43A, B (4) Instruction with standard advanced violin or viola materials. Prerequisite: Music 23C. Two one-half hour periods. Laboratory fee $15.00.

MUS 14A, B First Year Voice. (4) The study of breath control, and voice placement in tone production. Prerequisite: Permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 24A, B Second Year Voice. (4) The study of voice drills in voice placement, intonation, breathing, phasing, diction, etc. Prerequisite: Music 14C. Two one-half hour periods. Laboratory fee $15.00.

MUS 34A, B Third and Fourth Year Voice, MUS 44A, B. (4) The study of drills in vocal techniques. Prerequisite: Music 24C. Two one-half hour periods. Laboratory fee $15.00.

MUS 15A, B First Cornet (Trumpet or French Horn). (4) Instruction with standard elementary materials. Prerequisite: Permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 25A, B Second Year Cornet (Trumpet or French Horn). (4) The study of standard intermediate materials. Prerequisite: Music 15C. Two one-half hour periods. Laboratory fee $15.00.

MUS 35A, B Third and Fourth Year Cornet (Trumpet or French Horn), MUS 45A, B. (4) Instruction with standard advanced materials. Two one-half hour periods. Laboratory fee $15.00.

MUS 16A, B First Year Trombone (Baritone Horn or Tuba.) (6) Instruction with standard elementary materials. Prerequisite from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 26A, B Second Year Trombone (Baritone or Tuba). (4) The study of standard intermediate materials. Prerequisite: Trombone 16C. Two one-half hour periods. Laboratory fee $15.00.

MUS 36A, B Third and Fourth Year Trombone (Baritone or Tuba). (2-2) Instruction **MUS 46A, B** with standard advanced materials. Two one-half hour periods. Laboratory fee $15.00.

MUS 17A, B First Year Clarinet (or Flute). (2-2) Instruction with standard elementary materials. Prerequisite: Permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 27A, B Second Year Clarinet (or Flute). (2-2) The study of standard intermediate materials. Prerequisite: 17C. Two one-half hour periods. Laboratory fee $15.00.

MUS 37A, B Third and Fourth Year Clarinet (or Flute), MUS 47A, B. (2-2) Instruction with standard advanced materials. Two one-half hour periods. Laboratory fee $15.00.

MUS 18A, B First Year Oboe (or Bassoon). (2-2) The study of standard elementary materials. Prerequisite: Permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 28A, B Second Year Oboe (or Bassoon). (2-2) Instruction with standard intermediate materials. Prerequisite: Oboe 18C. One-half hour periods. Laboratory fee $15.00.

MUS 38A, B Third and Fourth Year Oboe (or Bassoon). (2-2) Individual instruction **MUS 48A, B** with standard advanced materials. Two one-half hour periods. Laboratory fee $15.00.

MUS 19A, B First Year Saxophone. (2-2) The study of standard elementary materials. Prerequisite: Permission from the Office of the Music Department. Two one-half hour periods. Laboratory fee $15.00.

MUS 29A, B Second Year Saxophone. (2-2) The study of standard elementary materials. Prerequisite: Saxophone 19C. Two one-half hour periods. Laboratory fee $15.00.

MUS 39A, B Third and Fourth Year Saxophone. (2-2) Instruction with standard advanced materials. Two one-half hour periods. Laboratory fee $15.00.

MUS 10A, B First Year Percussion. (2-2) An intensive study of elements of percussion technic. Accent will be on snare drum rudiments. One full hour, or two half hour lessons per week. Permission of Department of Music. Laboratory fee $15.00.

MUS 20A, B Second Year Percussion. (2-2) Continuation of above. Attention to bass drum and tampani. One full-hour instruction per week. Laboratory fee $15.00.

MUS 30A, B Third Year Percussion. (2-2) Intermediate materials for percussionists. Reveiw of all rudiments, introduction of solo and ensemble materials for percussion. Attention to tuned percussion instruments. One full hour instruction per week. Laboratory fee $15.00.

MUS 40A, B Fourth Year Percussion. (2-2) Advanced technic and literature for solo percussion instruments and percussion ensembles. Emphasis on recital literature in preparation for Senior Recital. Laboratory fee $15.00.

MUS 305, 306. Orchestral Conducting. (3-3) A study of the technic of conducting with particular emphasis on the use of the baton, score reading, program planning, and rehearsal procedures. An evaluation of orchestral and other instrumental music suitable for use in secondary schools. Prerequisite: Junior standing in Department of Music. Three lectures.

MUS 310. Brass Technics. (1) Fundamentals of care, construction, minor repair and performance.

MUS 311. Woodwind Technics. (1) Fundamentals of tone production, technic, care, construction, and minor repair. Prerequisite: Permission of the Office of the Music Department. Two periods.

MUS 312. Vocal Technics. (1) The study of technics of vocal tone production, breathing, articulation, enunciation and pronunciation as applied to the training of choral groups.

MUS 313. String Technics. (1) The study of the fundamentals of bowing, fingering, construction and care of string instruments. Two periods.

MUS 314. Percussion Technics. (1) Fundamentals of care and minor repair; study of technic of performance on most percussion instruments with emphasis on the snare drum. Two periods.

Major Ensemble Groups

MUS 002. String Ensemble. (1) The study and performance of representative literature for string ensemble and small orchestra with special emphasis on material suitable for beginning string programs for the public ership required for all string majors, open to all students with proficiency on a string instrument. Two (2) rehearsals per week.

MUS 003. University Choir. (1) The study of a variety of the finest choral literature. Prerequisite: Permission from the Office of the Music Department. Three or more periods.

(FALL SEMESTER)

MUS 004A. University Marching Band. (1) Admission by audition and permission of the Director of Bands. The study and performance of marching routines, performance styles designed for live, film and televised performances. Meet daily 3:00-5:00 p.m. Extra rehearsals as called.

(SPRING SEMESTER)

MUS 004B. Concert Band 1. (1) Admission by permission of the Director of Bands. A concerting group made up of those bandsmen who exhibit traits of outstanding musicianship, and an interest in performing the finest of literature for concerting bands. This ensemble will conduct tours, broadcast, record, and appear in formal concerts on the campus. Meets daily—3:30-5:00 p.m.

MUS 005. Stage Band (Jazz Ensemble). (1) Membership open to all University students by audition and competition. Activities include a study of playing techniques necessary for the performance of contemporary music for stage and recording, popular dance shows, show music, experimental music, and traditional and contemporary jazz-black music. Music majors must maintain concurrent membership in University Marching and Concert Bands. Two (2) rehearsals per week.

MUSIC EDUCATION

MUS 301. Introduction to Public School Music. (3) An introductory course in music for students in elementary education. Consists of a thorough study in music fundamentals, terminology, scales, keys, rhythms, and sight singing drills and dictation. Prerequisite: Permission from the Office of the Music Department. Three lectures.

MUS 371A. Music Education. (3) A study of principles, methods, materials, objectives, and procedures for teaching music in secondary schools. Prerequisite: Junior standing in Department of Music. Three lectures.

MUS 371B. Choral Methods and Materials. (3) A study of the principles and problems of teaching voice, managing and directing choral organizations, and the analysis and evaluation of choral materials. Prerequisite: Permission from the Office of the Music Department. Three lectures.

MUS 371 C. Instrumental Methods. (3) A study of methods, philosophies, materials, and objectives for teaching instrumental music from grade four (4) through grade twelve (12). Prerequisite: Junior Standing Department of Music. Three lectures.

MUS 434. Seminar in Jazz. (2) A study of the history of jazz and an analysis of the styles and major contributors. Two lectures.

MUSIC HISTORY, LITERATURE, AND APPRECIATION

MUS 131-132. Music Appreciation. (2-2) Emphasis on the development of the student's appreciation for the finest musical literature, and a constant extension of his listening repertoire. Only that history which will serve to make what he hears more meaningful to him is included. Three lectures.

MUS 321. History of Opera. (3) Dramatic, vocal and orchestral elements in opera of Italian, French, and German schools from 1750 to present.

MUS 340. Folk Music. (3) Folk music with emphasis upon that of the Southeastern United States.

MUS 335. Introduction to Afro-American Music. (3) History of blues, Gospel music, jazz, and African music with emphasis on black artists and their contributions. Prereq: 1310-20-30 or consent of instructor.

MUS 424-34. American Music. (3,3) 4241-from Colonial Times through the music of Ives; 4251-from 1930 to the present. Prereq: 1310-20-30 or consent of instructor.

MUS 331. Introduction to Music Literature. (3) An introductory course in Music Literature of all periods for Music Majors only. Course will consist of reading assignments covering the various periods of music with extensive outside listening experiences required. Three lectures per week.

MUS 337-8. Music History and Literature. (3-3) General information concerning the history of music. Embodies an analytic approach to music history, its growth and development. Prerequisite: Permission from the Office of the Music Department. Three lectures.

THEORY AND COMPOSITION

MUS 119. Orientation to Music. (1) Elementary instruction in basic language of music, scale formation, rhythms, sight singing, melodic dictation. Attention given to practice and study habits for music majors.

MUS 120-1. Freshman Theory. (4-4) Basic notation, intervals, scales and modes, rhythms, contrapuntal harmony, written and keyboard, sight singing and ear training, harmonic and form analysis. Prerequisite: Pass the basic Theory Test. Five lectures.

MUS 220-1. Sophomore Theory. (3-3) Aural and written harmony; keyboard harmony; figured bass; counterpoint; sight singing; ear training; analysis. Prerequisite: Music 122. Three lectures.

MUS 320. Counterpoint. (3) A study of the techniques underlying the principles used in writing good melodies and their association without losing independence. Prerequisite: Music 122. Three lectures.

MUS 401. Practicum in Arranging. (2) Individual projects supervised by a practicing professional arranger. Prereq: Consent of Instructor.

MUS 420-421. Forms and Analysis. (3-3) A study of compositions in the smaller and larger forms. Prerequisite: Music 321. Three lectures.

MUS 428. Physics of Music. (3) Theoretical and applied consideration of sound production and promulgation; the tempered scale, and other scales; the acoustical basis of wind and stringed instruments; analysis of complex tones produced by human voice and certain wind instruments. Prerequisite: Music 222. Three lectures.

MUS 430. Orchestration. (3) A systematic study and application of the techniques for utilizing the capabilities of orchestral and band instruments in Music Composition. Prerequisite: Music 321. Three lectures.

MUS 433. Composition. (3) A study of composition and the application of creative ability along systematic lines in writing original larger forms. Prerequisite: Permission from the Office of the Music Department. Three lectures.

MUS 451. Senior Recital. (2) Credit given only upon successful completion of public senior recital. Prerequisite: Permission of major applied instructor.

MUS 000. Performance Seminar. (0) Required of all music majors each quarter of matriculation during regular school year. For a satisfactory grade (S) each music major must attend 75+ of all scheduled recitals and seminars presented by student and faculty performers. First and third Thursday of each month.

COMMERCIAL MUSIC

The program in Commercial Music is designed for serious students of the craft of songwriting to learn with and from each other the techniques of melodic composition, harmonic structure and lyric writing within standard and deviant song forms.

Music 140. Fundamentals of Music Theory. (3) Theory and practice of basic elements of music.

Music 141-42. Elements of Popular Song. (3,3) Study of form, rhythm, melody, harmony, and lyrics in popular song. Analysis and Creative Writing. Must be taken in sequence. Prereq: Music 110 or equivalent.

Music 155-255. Solo Guitar. (1-2) Instruction in guitar playing. These courses represent progressive development. Each course may be repeated a maximum of three times.

Music 165-265. Country Fiddle. (1-2) Group instruction in Country and Bluegrass fiddling. These courses represent progressive development. Each course may be repeated a maximum of three times.

Music 241-42. Intermediate Songwriting. (3,3) Skills and techniques of crafting original material. Creative writing, analysis of standard songs, and critiquing works performed in class. Prereq: Music 142.

Music 300. Seminar in Songwriting. (3) Individual creative and analytical projects in songwriting. May be repeated for credit; no more than 9 hours may be applied toward a degree. Prereq: 142 and consent of instructor.

DEPARTMENT OF PHILOSOPHY AND RELIGIOUS STUDIES

DR. ARTHUR (Head).

PHILOSOPHY AND RELIGIOUS STUDIES

Philosophy, said Kant, is primarily concerned with three questions: What can I know? What ought I to do? What may I hope? These broad questions suggest many problems that have puzzled some of the greatest thinkers in human history. Is belief in God rationally defensible? What is a just society? Can we know the truth? Is a human being more than a body and a brain? Are we free? These, and many more, are the traditional problems of philosophy.

There are other philosophical problems whose origins are more recent. Advances in medical care have forced us to reconsider the definition of death. Advances in computer technology have stimulated a great deal of thought about artificial intelligence, and so led to a deeper understanding of the mind-body problem. The philosophy of natural and social science has also mushroomed, partly as a result of the successes of these disciplines. But discoveries in science, including evolution, computers and relativity theory, not only have had an impact on more traditional philosophical problems but they have raised many new problems. Philosophy is thus a mixture of the old and new; many topics have been discussed since well before Christ, but others have their impetus in events as recent as the development of modern biomedical technology and computers.

Students who wish to major in philosophy may do so by fulfilling the requirements for the General Degree Program in Arts and Sciences. Besides fulfilling these requirements, students should also take at least 24 upper division hours in philosophy for a major. Majors should include in those 24 hours both the History of Philosophy sequence (Phil 310, 311, 312) and Logic and Critical Thinking (Phil 250). Other courses should be selected so that the student acquires a background in a variety of areas of philosophy. Students wishing to minor in philosophy are required to take 12 upper division hours. All students interested in majoring or minoring in philosophy are encouraged to discuss their plans with an advisor.

The department also offers selected courses in religious studies. While these are not now sufficient to constitute a major or a minor, there are courses in many of the most popular fields of religious thought; including the Old Testament, the New Testament, world religions, and theology.

PHILOSOPHY

201. Introduction to Philosophy—Contemporary Moral Issues (3) Abortion, preferential hiring, sex, animal rights, starvation, punishment, violence and pacifism, law and morality, civil disobedience. (Formerly Phil. 323)

202. Introduction to Philosophy—Enduring Problems (3) The justification and significance of religious beliefs; knowledge and truth; materialism and human nature; free-will and determinism. Includes historical and recent sources on the perennial issues in philosophy. (Formerly Phil. 324)

210. Introduction to Film (3) Aesthetic and philosophical issues in film theory and criticism; principles of film criticism; film and other art forms; and the relation of the audience to film experience. Aims toward understanding and appreciation of a major art form. Films exemplifying particular techniques and movements are viewed and discussed.

211. History of Film. (3) An historical study of the development of film as an art medium.

250. Logic and Critical Thinking (3) Informal fallacies in ordinary life; e.g., politics, editorials, advertising; language and its uses: analyzing extended arguments; introduction to inductive and deductive logic.

251. Symbolic Logic (3) Modern deductive logic: propositional, and quantificational; philosophy of logic.

310. History of Philosophy, Ancient (3) Development of philosophic thought from the Greeks to the Thirteenth Century.

311. History of Philosophy, Modern (3) Modern philosophy from Descartes through Kant.

312. History of Philosophy, Contemporary (3)Contemporary philosophy from Hegel to the present.

320. History of Political Philosophy (3) Selected political philosophers from classical Greece to 1900, including Plato, Aristotle, Machiavelli, Locke, and Rousseau.

321. Contemporary Political Philosophy (3) Recent works on the central issues in political philosophy; economic justice, rights, political authority.

322. Marx and Socialism (3) Traditional and contemporary communist political philosohers, including Marx, Lenin and Mao; historical materialsim, exploitation, socialism and democracy.

330. Ethical Theory (3) Traditional and contemporary ethical theories; the meaning and justification of ethical language.

335. Business Ethics (3) Survey of major ethical issues arising in business: corporate social responsibility, corporate loyalty, government regulation and public interest, advertising, environmental responsibilities, preferential hiring, free-enterprise and social welfare.

336. Medical Ethics (3) A detailed consideration of various ethical issues in medicine and health care, including death and patients' rights, abortion, truth telling, experimenting on humans, religious conflicts, and the right to medical resources.

340. Philosophical Ideas in Literature (3) Philosophical issues, problems and assumptions in major literary works.

341. Existentialism (3) Contemporary and traditional Existential thinkers, including Sartre, Camus, and Kierkegaard.

342. Aesthetics (3) Problems in the philosophy of art and art criticism; aesthetic experience; truth and art; aesthetic value.

400.Philosophy of Mind (3) Consideration of various topics related to the existence and nature of mind: Mind-body identity, dualism, behaviorism, action theory, free-will and determinism.

410. Philosophy of Religion (3) The rationality of religious beliefs and practices; religious experience; the role of faith, religious language.

420. Philosophy of Law (3) Problems in the nature and justification of legal systems; natural law and legal positivism; theory of punishment.

430. Philosophy of Science (3) Problems in the nature of science and its relation to other human concerns, e.g., religion, politics, and ethics; the character of scientific theories and explanations in both natural and social science; scientific progress and truth.

440. Special Topics (3) Student or faculty generated course. Scope of subject matter to be determined by students and instructor.

450. Undergraduate Readings and Research (3) Individual study and research under faculty guidance. Prerequisite: 12 hours of upper division philosophy and permission of instructor.

RELIGIOUS STUDIES

200. Introduction to Religious Studies (3) Current issues in Religious Studies: ethics, theology, history of religion.

201. World Religions (3) Introduction to selected themes in world religions, Eastern and Western.

210. The Old Testament (3) Origins, literature and beliefs of the Old Testament. (Formerly Phil 301)

211. The New Testament (3) Origins, literature and beliefs of the New Testament. (Formerly Phil 301)

212. Jesus in History (3) Ancient and modern portrayals of Jesus understood in their cultural contexts.

330. Religion in America (3) The role of religious institutions and practices in America; American theology; religion and social reform; varieties of religious expression.

410. Contemporary Religious Thought (3) Major themes, issues and thinkers. (Same as Philosophy 410)

DEPARTMENT OF PHYSICS AND MATHEMATICS

Ronald Atkinson (Acting Head)

The Department of Physics and Mathematics offers programs leading to Bachelor of Science and Bachelor of Arts degrees with a major in Mathematics or major in Physics.

Departmental Objectives

The objectives of the Department are as follows: (1) To provide programs of study for those who desire to pursue an undergraduate major or

minor in mathematics or physics, (2) to provide courses designed to satisfy the mathematics and physics requirements for the several schools of the University, and (3) to provide services to the University and wider community which are required and appropriate.

The Department offers curricula leading toward two undergraduate degrees in mathematics and physics: Bachelor of Arts and Bachelor of Science.

Objectives of the Mathematics Courses

The freshman courses for non-science majors are designed primarily to assist students to achieve (1) computational efficiency in the basic mathematical operations, (2) skill in the use of formulas for the solution of problems, and (3) the ability to translate some of the simpler problems of the real world into the symbolic language of mathematics.

The courses for science, engineering, and mathematics majors on the freshman and sophomore levels are intended to assist students to achieve skill in the formulation and solution of problems in algebra, trigonometry, analytic geometry, and calculus.

Objectives in Physics Courses

The objectives of the physics courses are (1) to develop an appreciation of the application of the scientific method, (2) to develop a scientific picture of the physical world involving the relationship between matter and energy, (3) to develop the ability to think critically and logically.

Both sequences of introductory physics courses, Physics 211-2 and Physics 221-2, introduce the basic concepts of physics, but the former sequence requires a knowledge of calculus and the latter does not require calculus.

The upper-level physics courses treat special topics in physics, and there are both theoretical and experimental courses.

Curriculum in Physics

Majors in physics are required to complete a minimum of 34 (33 for teacher education) semester hours of course work in physics, with a minimum of 25 (27 for teacher education) hours selected from physics courses numbered 300 and above.

Curriculum in Mathematics

Majors in mathematics are required to complete a minimum of 34 semester hours of course work in mathematics exclusive of Mathematics 161, 191-2, and 291-2. A minimum of 20 semester hours must be selected from courses numbered 300 and above. Students who minor in mathematics must complete a minimum of 10 semester hours selected from mathematics courses numbered 300 and above.

Required Courses

Mathematics 161-2, 261-2, 341-2, 361-2, 364 and 450 are required of all majors in the area of mathematics. Math 371 is required of all majors in the area of mathematics who are certifying. A minimum grade of "C" must be earned in each of the required courses.

Theoretical and Applied Groups

Juniors and Seniors are offered two types of programs—theoretical and applied.

The theoretical program is designed primarily for students planning to do graduate study in pure mathematics. In addition to the required courses, their program should include Mathematics 331-2, 451-2-3, 473 and selected topics from the Mathematics 480 series.

Students seeking the general B.S. or B.A. degree in Arts and Sciences (UT Degree) should refer to pages for specific core requirements.

Departmental Awards for Scholarship

The Department of Physics and Mathematics has two annual awards which are made to its majors. They are: The Mathematics-Physics Faculty Award. This award goes to the Senior major in the Department of Physics and Mathematics who has attained the highest cumulative average in four years. This award takes the form of an appropriately inscribed plaque.

The Sadie C. Gasaway Memorial Award. This award is given to the graduating major in mathematics with a grade point average of 3.25 or above who shows greatest promise on the basis of sustained evidence of self-development and of leadership ability. This award is provided by Miss Pearlie Gasaway, a member of the faculty of the Department of Physics and Mathematics, in honor of her sister, the late Dr. Sadie C. Gasaway, who was Head of the Department of Physics and Mathematics for many years and was a member of the Department for 31 years.

Career Opportunities with a B.A. or B.S. degree in Mathematics

1. Mathematican in Government:
   Bureau of Mines
   Treasury Department
   National Bureau of Standards
   Census Bureau
   Coast and Geodetic Survey
   Department of Defense (Army, Navy, Air Force, Marine Corps)
   Others
2. Mathematician in Industry:
   Union Carbide
   IBM
   Western Electric Corp.
   Caterpillar Tractor Co.
   South Central Bell Telephone Co.
   Procter and Gamble Co.
   Honeywell
   General Motors
   Others
3. Statistician in Government
4. Actuary (additional formal training)
5. Engineer (additional on the job training)
6. Surveyor (additional on the job training)

7. Aeronautical Research Specialist (additional on the job training)
8. Computer Analyst
9. Teacher on Junior High and Senior High Level (with teacher certification)
10. Operations Research Specialist (additional on the job training).

Career Opportunities with B.S. Degree in Physics

Physics has such a broad scope and plays such a basic role in all science and engineering disciplines that the range of careers in physics probably exceeds that of any science degree major area. Some of the broad categories into which physics careers fall are listed below. Within each category, there are numerous fields of specialization.

Solid-State Physicist
Nuclear Physicist
Optical Physicist
Elementary-Particle Physicist
Atomic, Molecular, and Electron Physicist
Fluid and Plasma Physicist
Space and Planetary Physicist
Acoustical Physicist
Biophysicist
Medical Physicist
Astrophysicist
Environmental Physicist

With a bachelor's or master's degree in physics, one is more likely to engage in design and development work, teaching, or administration than in research. In design and development work, employment would most likely be with an industrial firm, a government laboratory, or a non-profit research center to apply already-developed theories to specific problems. In teaching, with a bachelor's or master's degree, one would probably teach at a high school. Administrative positions are available with all types of work and employers, but for these positions one usually needs first either an on-the-job training program or experience in the field.

With a doctoral degree, one is prepared for a research career. The research program may fall anywhere in the range from "basic" or theoretical to "applied," depending upon his/her interests and those of his/her employer. Research at a college or university usually accompanies some teaching and is more likely to tend toward the basic end of the spectrum with less concern for immediate applications. At an industrial laboratory, research as part of a research team is more likely to tend toward the applied end of the spectrum, being somewhat directed by the interests of the company for which one works. Research at a government laboratory or a non-profit research center lies in the middle ground between an industrial laboratory and a college or university. All of these offer the opportunity for a challenging, productive research career.

Since physics training provides such a broad scientific background and the development of an analytical approach to the solution of problems, it is also excellent preparation for a variety of fields including:

Electronics
Engineering
Computer Science
Communications
Energy Research and Development
Medicine
Law
Business

CURRICULUM FOR MAJOR IN PHYSICS

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
MATH 261-62	4	4
HIST 201-02	3	3
CHM 121-22	4	4
PHYS 191	1	
PE or AFROTC	1	1
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
MATH 341 Math Elective	3	3
PHYS 221-22	4	4
CS 193, 291	3	3
HUM ELECT.	2	2
PE or AFROTC	1	1
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
PHYS 311-12	3	3
PHYS 321-22	3	3
PHYS 331-32	2	2
MATH 342	3	
MATH 462-63	3	3
FOR LANG	4	4
SOC SCI ELECT (300 level)		3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
ENG 300	2	
PHYS 412-13	3	3
PHYS 450		3
APP ELECT (300-400 level)	12	10
	17	16

*Mathematics 161 and/or Mathematics 162 are to be taken first if need is indicated.

CURRICULUM FOR A MAJOR IN PHYSICS (TEACHER EDUCATION)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
MATH 261-62	4	4
HIST 201-02	3	3
CHM 121-22	4	4
PE or AFROTC	1	1
PHYS 191	1	
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
MATH 341; MATH ELECT	3	3
PHYS 221-22	4	4
CS 193, 291	3	3
PE or AFROTC	1	1
PSY 242	3	
HUM ELECT		4
	17	18

JUNIOR YEAR	Credit Hours Fall	Spring
PHYS ELECT (300 level)	3	
PHYS 311-12	3	3
PHYS 412-13	3	3
MATH 462-63	3	3
ED 201	3	
ED 301		3
PSY 312		3
SOC SCI (300 level)	3	
	18	15

SENIOR YEAR	Credit Hours Fall	Spring
ENG 300	2	
PHYS 450	3	
ED 387	3	
HLTH 301 or 305	2	
PHIL 323	2	
PHYS ELECT (300-400 level)	3	
PHYS 371		3
ED 491		3
ED 472		9
	15	15

*Mathematics 161 and/or Mathematics 162 are to be taken first if need is indicated.

CURRICULUM FOR A MAJOR IN MATHEMATICS

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
MATH 261-62*	4	
HIST 201-02	3	3
FR 101-03 or GER 101-02	4	4
PE or AFROTC	1	1
MATH 191-92	1	1
	16	12

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
MATH 341, 364	3	3
PHYS 221-22	4	4
CS 193, 291	3	3
HUM ELECT	2	
PE or AFROTC	1	1
	16	14

JUNIOR YEAR	Credit Hours Fall	Spring
MATH 361-62	3	3
ENG 300		3
PHIL 323	2	
MATH ELECT (300 level)	3	4
BIOL 111-12 or CHM 121-22	4	4
APPR ELECT	4	3
HUM ELECT	2	
	18	17

SENIOR YEAR	Credit Hours Fall	Spring
MATH 450	3	
MATH ELECT (300-400 level)	6	6
APPR ELECT (300-400 level)	8	10
	17	16

*Mathematics 161 and/or Mathematics 162 are to be taken first if need is indicated.

CURRICULUM FOR A MAJOR IN MATHEMATICS (TEACHER EDUCATION)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
MATH 261-62	4	4
HIST 201-02	3	3
FR 101-02 or GER 101-02	4	4
MATH 191-92	1	1
PE or AFROTC	1	1
	16	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
MATH 341, 364	3	3
PHYS 221-22	4	4
HUM ELECT	4	
ED 201		3
CS 193, 291	3	3
PE or AFROTC	1	1
	18	17

JUNIOR YEAR	Credit Hours Fall	Spring
MATH 361-62	3	3
MATH ELECT (300-400 level)	4	2
ED 387		3
ED 301		3
HUM ELECT	4	
ENG 300	2	
PSY 312		3
BIOL 111-12 or CHM 121-22	4	4
	17	18

SENIOR YEAR	Credit Hours Fall	Spring
PHIL 323	2	
MATH 450	3	
ED 491		3
ED 465	3	
ED 472S		9
MATH 371		3
HLTH 301 or 305	2	
SOC SCI ELECT (300-400 level)	4	
ELECT (300-400 level)	2	
	16	15

*Mathematics 161 and/or Mathematics 162 are to be taken first if need is indicated.

LOWER DIVISION

Mathematics 100. Arithmetic and Prealgebra. (3) Fundamental operations on whole numbers, fractions, integers, prime numbers, mixed numbers, decimals, percentages, and ratios and proportions. This course is designed for students who score below a prescribed minimum on a Diagnostic Test. May not be counted toward any degree requirements.

Mathematics 101. Elementary Algebra. (4) Integers, mathematical expressions, linear equations, exponents, products, factoring, algebraic fractions, radical expressions, quadratic equations, graphing linear equations and parabolas. May not be counted toward any degree requirements.

Mathematics 102. Geometry. (3) Lines, triangles, circles, polygons, congruent and similar triangles, parallelism, area, coordinate geometry, geometric proofs. Prerequisite: Ony year of high school algebra or Math 101. May not be counted toward degree requirements.

Mathematics 110. The Mathematics of Drugs and Solutions (1) The metric and Apothecaries' systems of weights and measures; abbreviations, symbols, conversions. Calculations involved in preparing solutions from powdered drugs and tablets, dilutions of concentrated stock solutions, dosages.

Mathematics 111. Introduction to College Math I. (4) A review of fundamental operations in arithmetic and algebra; sets; linear and quadratic equations; systems of equations exponents; functions; graphs. Four lectures and one laboratory period per week.

Mathematics 112. Introduction to College Math II. (3) An extension of Math. 111 with emphasis on exponential functions, logarithms, numerical trigonometry, probability and elementary statistics. Prerequisite: Math. 111. Three lectures per week.

Mathematics 111H-112H. Introduction to College Math I and II. (3,3) A review of fundamental operations of algebra and arithmetic; linear and quadratic equations, trigonomentry, probability and statistics. This sequence will consider the more theoretical aspects of each of the above topics. The course is intended for students enrolled in the University Honors Program. Prerequisite for Math 112H is 111H.

Mathematics 113. Basic Calculus. (4) Slopes of lines, average rates, differentiation with applications in business, social sciences, physical and life sciences. Integration and applications, sequences and series, exponential and logarithmic functions. Prerequisite: Math. 111.

Mathematics 172. Mathematics of Finance. (3) Compound interest and discount, annuities, amortization and sinking funds, depreciation, bonds, life annuities, life insurance. Prerequisite: Math 111.

Mathematics 161. Precalculus Mathematics I. (4) An integrated course in algebra and trigonometry designed for the mathematics, science and engineering majors whose records and-or tests performances indicate the need for the course. Four lectures per week.

Mathematics 162. Precalculus Mathematics II. (4) Analytic geometry of two and three dimensions. Prerequisite: Mathematics 161 or satisfactory high school and test performance records. Five lectures per week.

Mathematics 191-2; Fundamentals of Mathematics I-II. (1-1) A brief survey of selected topics, the theory of sets and propositional logic, algebra of vectors, applications of vectors, basic consepts of differential and integral calculus. One lecture per week.

Mathematics 211-212. Structure of the Number System. (3,3) Set theory, whole numbers integers. Inverses, order properties, rational numbers. Elementary number theory, rational and irrational numbers. Euclidean geometry. Must be taken in sequence. Prerequisite: 1 year high school algebra and at least sophomore standing in Elementary Education: College of Education, or consent of instructor.

Mathematics 261-262 Calculus and Analytic Geometry I, II. (4,4) Functions, graphs, mathematical induction, inequalities, graphs, limits, continuity, derivatives, application of derivatives, conics, integration and its applications. Inverse functions, logarithmic, exponential and trigonometirc functions, integration techniques, polar coordinates, vectors, three dimensional spaces, vector functions and indeterminate forms. Partial differentiation multiple integrals. Prerequisite: 2 years of high school algebra and one semester of trigonometry or Math 161. These courses should be taken in successive quarters.

Mathematics 291-292. Introduction to Probability and Statistics I, II. (1, 1) A brief survey of discrete probability, basic statistics concepts, applications. Prerequisite for 292: Math 291. One lecture per week.

UPPER DIVISION

Math 311-12. Probability and Statistics I-II. (3-3) The mathematical foundations, methods, and applications of probability theory; an introduction to some principles of statistical analysis; sampling distributions, tests of significance, decision making. Prerequisite: Math 262 or equivalent, or consent of the department.

Math 313. Introduction to Numerical Analysis. (3) Errors, interpolation, approximations, numerical quadrature, solution of ordinary differential equations. Prerequisite: Math 262

Math 331. Concepts of Modern Geometry I. (3) Advanced plane geometry, synthetic and analytic, and its relation to Euclidean and other geometries. The classical theorems of Ceva, Menelaus, and others are treated. Prerequisite: Math 262 or equivalent.

Math 332. Concepts of Modern Geometry II. (3) Elementary geometry is reexamined from an advanced standpoint. Valid definitions are presented and proofs of theorems (intuitively known) are given. Prerequisite: Math 262 equivalent.

Math 341-2. Calculus and Analytic Geometry III-IV. (3-3) Line and surface integrals, infinite series, and an introduction to differential equations. Prerequisite: Math 262.

Math 361-2. Linear Algebra. (3,3) Theory of and operations on vector spaces; matrices, determinants, and solutions of systems of linear equations; matrix transformations, rank of systems of linear equations; selected topics from the theory of equations. Prerequisite: Math 262.

Math 364. Introduction to Modern Algebra. (3) The algebra of sets. Properties and theorems on groups, rings, integral domains, fields, ideals and other mathematical systems. Prerequisite: Math 262.

Math 371. The Teaching of Mathematics in the Secondary School. (3) Lectures, discussions, and reports on materials and methods used in the instruction of mathematics at the junior and senior high level. Prereq: Math 262; prerequisite or parallel.

Math 450. Senior Project. (3) Individual study and written presentation of a special topic in mathematics or the teaching of mathematics. Required of all prospective graduating seniors in the deapartment. Prerequisite: Senior standing.

Math 451-2. Functions of a Real Variable. (3) Point-set topology of the real line, limits, functions, continuity, differentiation, sequences, series, convergence and integration theory. Prerequisite: Math 342.

Math 453. Functions of a Complex Variable. (3) Geometry of the complex plane, complex integrals, Cauchy's integral theorem and formula, Taylor's and Laurent's series. The calculus of residues and an introduction to conformal mapping. Prerequisite: Math 342.

Math 461. Special Topics in Calculus. (3) Infinite series, improper integrals, Cauchy's integrals, Gamma and Beta Functions, and elliptic integrals. Prerequisite: Math 262 or equivalent.

Math 462-3. Differential Equations I-II. (3-3) Solution of ordinary differential equations; applications; partial differential equations; methods of numerical analysis of nonlinear equations. Prerequisite: Math 262 or equivalent.

Math 464. Partial Differential Equations. (3) Fourier series; Fourier integrals; orthogonal functions; the vibrating string; solution by series; heat flow, Bessel functions. Prerequisite: 463.

Math 472. History of Mathematics. (3) The origin and development of mathematical ideas beginning with geometry and algebra and continuing through selected topics in modern mathemaitcs. Prerequisite: Math 262 or consent of department.

Math 473. Introduction to Mathematical Logic (3) Introduction to the nature of consistency and valid inference. Isomorphisms among derivation systems, truth-value structures, and English. Predicate calculus; universal and existential quantification. The logic of identity. Informal proofs. Prerequisite: Math 262 or consent of department.

Math 474. The Logic of Sets and of Mathematics. (3) A formal treatment of set theory. The relation of logic and set theory to scientific method, mathematics and statistics. Inductive versus deductive processes. Theory of definition. Multivalued logics. Prerequisite: Math 473.

Math 480. (A Through I). Special Topics in mathematics to be offered to the preference and needs of the student.

a. **Boolean Algebra.** (3) Definition of a Boolean Algebra and related theorems with proofs; the application of Boolean Algebra to the algebras of sets, logic and switching circuits.

b. **Combinatorial Analysis.** (3) The calculus of enumeration including permutations, the principle of inclusion and exclusion, Polya's Theorem. Prerequisite: Math 262.

c. **Introduction to the Theory of Numbers.** (3) Divisibility properties of integers; primes and their properties; linear congruences and congruences of higher degree; number theoretic functions; diophantine equations; quadratic reciprocity laws; unsolved classical problems in number theory.

d. **Operation Calculus.** (3) Basic operation rules of Laplace transforms through the comlex-inversion theorem. Applications to solutions of initial and boundary value problems in differential equations. Prerequisite: Math 262 and Math 462.

e. **Introduction to Functional Analysis.** (3) Banach space, Hilbert space, linear operators. Prerequisite: Math 451.

f. **Vector Calculus.** (3) Derivative and integral of vector functions, gradient, divergence, curl, Green's Theorem, Stokes Theorem and introduction to Laplace's Equation and elementary boundary value problems. A thorough knowledge of matrices and determinants recommended. Prerequisite: Math 262.

g. **Tensor Calculus.** (3) Theory and Application of Tensors. Linear vector spaces, Riemannjan geometry, analytical mechanics, calculus of variations and mechanics of continuous media. Prerequisite: Consent of department.

h. **Metric Differential Geometry.** (3) Curves and surfaces in Euclidean 3-space, developable surfaces, fundamental forms, systems of curves and surfaces, curvature, geodesics. Prerequisite: advanced standing in mathematics.

i. **Elementary Topology.** (3) Sets, functions and relations; metric spaces, general topological spaces; compactness; connectedness; quotient spaces; net and filter convergence; prpduct spaces. Prerequisite: Math 262.

Math 491. Linear Programming (3) Matrix algebra, convexity and linear function, constraints and objective function, graphical methods, simplex method, degeneracy, decomposition theory, linear programming in FORTRAN, dual theorems, primal-dual methods, integer programming, parametric programming and applications in assignment, transportation and management problems. Prerequisite: Math 362.

Math 492. Finite Markov Chains. (1) A brief survey of the theory of Markov Chains and its applications. Prerequisite: Consent of department.

Math 493. Difference Differential Equations. (3) Linear difference differential equations, some partial difference differential equations, numerical solution to differential equations, and applications in engineering and social sciences. Prerequisite: Math 262 and 463.

Phy 191-192. Fundamentals of Physics. (1, 1) A freshman course designed to give the beginning physics major (1) a descriptive account of the classical and modern concepts in physics; (2) a brief review of trigonometry, vector algebra and problem solving techniques.

Phy 211-212. College Physics. (4, 4) Mechanics; Heat, Sound, and Light; Electricity and Magnetism and Modern Physics. A course in which the basic principles are presented. Required of biology, pre-med., and allied health profession majors. Prerequisite: Mathematics 161. Successful completion of Physics 211 is the prerequisite for Physics 212. Three lectures and one two-hour laboratory period per week.

Phy 221-222-223. General Physics. (4, 4, 4) Mechanics; Heat, Sound and Light; Electricity and Magnetism; and Modern Physics. The course is intented for students with majors in engineering, mathematics, or a physical science. Prerequisite: Math 261 (or taken concurrently). These courses must be taken in sequence. Three lectures and one two-hour laboratory period per week.

Phy 301. Qualitative Biophysics. (3) A qualitative approach to introductory biophysics; skeletal muscle dynamics, assessment of bone structure by measurement of the speed of sound and bonemineral content, hydrodynamic analysis of the cardiovascular system. Prerequisite: one year of college physics.

Phy 311-312. Electricity and Magnetism. (3 3) This course presents the fundamentals of theoretical electricity and magnetism. Considerable emphasis is placed upon the solution of problems. Prerequisite: Math 261-2, Phy 221-2 or Phy 211-2. Three lectures per week.

Phy 314. Optics. (3) A brief review of geometrical optics and a study of physical optics including spectroscopy. Prerequisite: Physics 211-212 or Physics 221-222; Math 262. Three lectures and one laboratory period per week.

Phy 320. Heat and Thermodynamics. (2) A study of the fundamentals of heat and an introduction to thermodynamics with applications to chemistry. Prerequisites: Physics 211-2 or Physics 221-22; Mathematics 262. Two lectures per week.

Phy 321-322. Mechanics. (3, 3) Statics and dynamics of particles and rigid bodies. Lagrange's and Hamilton's equations: Fluid Statics, and vibrations. Prerequisite: Physics 211-2 or Physics 221-2; Mathematics 261-2. Three lectures per week.

Phy 331-332. Electrical Measurements. (2, 2) The theory of electrical circuits is studied and discussed. The laboratory work is intended to give experience and facility in the handling of electrical measuring instruments. A comprehensive list of experiements is required, covering modern methods of mastering current, resistance electromotive force and power, and the calibration of instruments employed, together with measurements of capacity inductance, and ferro-magnetism. Prerequisites: Physics 221-2 or Phy 211-2; Mathematics 261-2. Two laboratory periods per week.

Phy 341-342. Advanced Laboratory. (2, 2) This course is designed to permit the student to develop a variety of laboratory skills and techniques by performing experiments of an advanced nature selected from the areas of Mechanics, Heat, Sound, Light, and Modern Physics. Prerequisites: Physics 221-2; Mathematics 261-2. Three lecturers per week.

Phy 361. Solid State Physics. (3) A physical interpretation of the conductive properties of metals and semi-conductor materials based on the periodic nature of the crystalline solid is presented; applications, including the transistor. Primarily for electrical engineering students with junior standing.

Phy 371. Teaching of Physics in the Secondary Schools. (2) Emphasis is placed on the materials and methods suitable for use in secondary schools. Techniques of caring for apparatus, tools, and materials are studied.

Phy 401. Seminar for Modern Physics. (2) A course designed as an elective suitable for liberal arts students as well as science and mathematics students. Selected topics in modern physics; concepts discussed from the standpoint of the effects these concepts have had on man and his environment.

Phy 402. Modern Health Physics. (2) An introduction to medical and health physics with descriptive emphasis on modern instrumentation; electrocardiogram, radiology and radiobiological instrumentation, X-rays as a diagnostic tool, ultrasonics, electronmicroscopy, optical and accoustical hohography, laser surgery. Prerequisite: One year of college physics.

Phy 410-411. Introduction to Quantum Mechanics. (3, 3) Introduction to fundamental principles of quantum mechanics and methods of calculation. Application to atomic, molecular and nuclear physics. Prerequisite: Physics 221-2. Math 261-2.

Phy 412-413. Modern Physics. (3, 3) The Classical and modern concepts of the atom and radiation are developed; introduction to molecular structure, the chemical bond, nuclear physics; fission, isotopic tracers; medical radiology; cosmic rays. Prerequisites: Physics 221-2 or Physics 221-2; Mathematics 261-2. Three lectures per week.

Phy 450. Senior Project. (3) Individual study and presentation of a special topic in physics or the teaching of physics. Required of all prospective graduating seniors in the department.

Phy 440-460. Undergraduate Readings and Research. (3, 3) Individual study and research under faculty guidance. Prerequisite: 12 hours of upper division physics and permission of instructor.*[1]

*[1]Physics 410-411 (3, 3) Formerly 4110-4120-4150 (UTN) (3, 3, 3)

*[1]Physics 440-460 (3, 3) Formerly 440-4460 (UTN) (3, 3)

Astronomy

Astronomy 110-20. Introductory Astronomy. (4,4) History of astronomy, development of theories, astronomical equipment and observational techniques; Solar system—planets, sun, interplanetary matter, comets, meteors.

Astronomy 140. Modern Astronomy. (4). Introduction to steller and galactic astronomy. Includes discussions of quasars, pulsars, black holes in space, and modern cosmology. Telescopic observations of prominent objects.

Astronomy 301-02. Descriptive Astronomy. (3,3) An introduction to modern astronomy, including the solar system and its constituents, stars and stellar systems, their structure and motions, and cosmology. Astronomical instruments and their uses will be studied.

COMPUTER SCIENCE (CS)

CS 193. Basic Computer Programming. (3) Introduction to some of the basic types of statements in the BASIC and FORTRAN languages. Some elementary problems from algebra, trigonometry and geometry, as well as, some business oriented problems. Prerequisite: Consent of instructor.

CS 291. Computer Programming. (3) An extension of CS193 using more advanced programming instructions with emphasis on problems making use of Function subprograms and subroutine subprograms. In addition to BASIC and FORTRAN, other languages such as assembler and COBOL will be studied. Applications of programming techniques to problems in mathematics, engineering, science and non-scientific areas will be discussed. Prerequisite: CS193 or permission of instructor.

Other courses in Computer Science are listed in the Engineering section of this catalog.

GEOLOGY

Geology 101-102 is a sequence which satisfies the physical science requirement for students seeking a B.A. or B.S. degree in Arts and Sciences (UT Degree), or a B.S. degree in Education or a B.S. degree in Business Administration (UT Degrees).

Students concentrating in geology (for UT Degree) should include in their curriculum Geology 210, 317, 318, 320, 340, 410.

Students seeking the general B.S. or B.A. degree in Arts and Sciences (UT Degree) should refer to pages 130-32 for specific core requirements.

GEOLOGY

Geology 101-102 (4, 4) Geology 101. Physical Geology. Materials and Structure of the Earth, Geologic Processes and Landforms.

Geology 102. Oceanography and Historical Geology. Shoreline erosion and deposition, marine sedimentary processes and methods of historical geology.

Geology 210. Geological History of the Earth. (4) Origin and evolution of continents, atmosphere, oceans and earth's inhabitants with emphasis on physical history and classical stratigraphy of North America. Prerequisite: Geology 102—3 hours and one hour lab.

Geology 261. Geology (for engineering students). (3) Materials and structure of the earth with emphasis on the engineering behavior of rocks.

Geology 317. Crystallography and Methods in Mineralogy. (3) Classical and modern X-ray Crystallography. Classification and identification of silicate and non-silicate minerals. Laboratory includes hand specimen and analytical methods of identification. Prerequisite: 102. 2 lectures and 1 lab.

Geology 318. Lithology. (4) Elements of rock classification and properties of igneous, metamorphic and sedimentary rocks. Laboratory includes study of megascopic and microscopic properties of important rock types and introduces thin section study. Prerequisite: 317. 2 lectures and 2 labs.

Geology 320. Invertebrate Paleontology. (4) Laboratory includes identification of all commonly fossilized invertebrate Phyla. Prerequisite: 102 or consent of instructor.

Geology 330. Geology Field Trip. (4) A three week field trip through the American West, with emphasis on observations in areas of noteworthy geological interest. Library research and a report on an area visited. Prerequisite: 210 and consent of the instructor.

Geology 340. Structural Geology. (4) Introductory discussion of structures such as folds, faults, joints, cleavage and primary structures. Laboratory work includes depth and thickness problems, structure sections, structure contour maps, and stereographic projections. Prerequisite: 102 or consent of instructor. 2 hours and 1 lab.

Geology 350. Introductory Environmental Geology. (4) Geologic problems involving earth environments and resources, and geologic parameters associated with their control and misuse. Prerequisite: Geology 102.

Geology 410. Sedimentology. (4) Origin and methods of transportation and deposition of sediments; techniques of description and methods of classification of sedimentary rocks; identification of original sedimentary structures. Prerequisite: 102, 318, 2 hours and 2 labs.

Geology 430. Geologic Mapping. (3) Interpretation of maps and methods of geologic mapping. Prerequisite: 210, 340, 410.

Geology 440. Optical Mineralogy and Petrology. (3) Microscopic properties of rocks and minerals in thin section, including study with the polarizing microscope. Prerequisite: 318. 2 lectures and 1 lab.

Geology 450. Petroleum Geology. (4) Origin and accumulation of petroleum and natural gas. Geological methods used in exploration. Evaluation of well logs. Prerequisite: 102, 318, 340 or consent of the instructor.

Geology 460. Geology of Ore Deposits. (4) Distribution, origin, mode of occurence, methods of exploration and uses of metallic minerals. Prerequisite: Geology 102, 318, 340 or consent of the instructor.

Geology 470. Geology of Non-metallic Minerals. (4) Origin, occurrence and uses of non-metallic minerals. Prerequisite: Geology 102, 318 or consent of the instructor.

Geology 480. Principles of Geomorphology. (4) Gradational processes acting at earth's surface and landforms produced. Prerequisite: 102.

DEPARTMENT OF SOCIAL WELFARE

DR. MASON (Head)

OBJECTIVES:

The basic objective of the Social Welfare Program at Tennessee State University is to prepare students for employment at the baccalaureate level in the field of social work. A second objective is to prepare students for entry into graduate social work education. The third objective is to contribute to the enrichment of general education by introducing students throughout the University to some of the problems, issues and contemporary developments in social welfare.

These objectives are consistent with the broad needs and interests of the students at Tennessee State University and are met through the curriculum offered through the Social Welfare program.

The curriculum is designed to: 1. Help students understand human behavior, the nature of social problems, and the ability to apply various treatment techniques in working with people who have problems. 2. Give students insight into the basic social work processes, policies and services including the influence of economic, political and social factors. 3. Provide an opportunity to apply theory through educationally focused field practice.

The curriculum in social welfare offers courses of study leading to the Bachelor of Science degree. Students will earn a minor in Sociology.

Requirements for graduation: (1) A student must complete a minimum of 134 semester hours. (2) At least 60 of the semester hours must be in courses on the 300 and 400 level. (3) A minimum of 40 semester hours in Social Welfare content courses.

To fulfill the need for more exposure in social welfare agencies, all students will be required to have a participatory observation experience prior to field placement. During the sophomore year all social welfare majors will observe and participate in five social welfare agencies for a minimum of 30 clock hours. In the junior year, students will complete two written agency profiles. Students participating in the Department's regular Volunteer program may use that experience in lieu of the observation and participation. Both requirements must be met prior to being admitted to field experience.

A student must spend a minimum of 375 clock hours (one semester) in field experience in selected social agencies. The purpose of this experience will provide the student with an opportunity to apply theory to actual practice under supervision and guidance of a qualified practitioner. He will be evaluated on the basis of his growth and development.

A student must have a cumulative average of at least 2.00 and must have earned the grade of "C" in Social Welfare 320, 330, 340, 350, 360, 380 and 400, before being admitted to Field Experience.

Courses in the major field in which a student receives the grade of "D" must be repeated.

Students who wish to minor in Social Welfare must complete a minimum of 18 semester hours including the following: Social Welfare 320, 330, 340, 350, 360 and two electives.

Courses required of all majors

Social Welfare	**40 Semester hours**
100	Orientation (1)
320	Human Behavior & Social Environment (3)
330	Introduction to Social Welfare (3)
340	Social Policy (2)
350	Interventive Methods (3)
350L	Interventive Methods Lab (1)
360	Interventive Methods-Community-Organization (3)
380	Social Welfare Research (3)
400	Social Work Intervention in Health (3)
410	Field Experience (12)
420	Field Experience Seminar (3)
450	Analytical Review Literature (3)
490	Senior Seminar (1)

The Social Welfare Curriculum offers students three options: (1) The generalist curriculum, (2) The generalist curriculum with a concentration in child welfare, (3) The general curriculum with a concentration in health care and aging, and (4) The general curriculum with a concentration in gerontology.

GENERALIST CURRICULUM FOR MAJOR IN SOCIAL WELFARE

Freshman Year Courses	Semester Hours Credit	
English 101-102	3	3
History 201-202	3	3
Math 111-112	4	3
Sociology 211	3	
Art 133		2
Speech 220		3
Social Welfare 100	1	
Physical Education 11-12		
Air Science 151-152	1	1
Government and Public Affairs		3
	15	18

Sophomore Year Courses	Semester Hours Credit	
English 211-212	3	3
Biophysics 121-122	3	3
Social Welfare 320-330	2	3
Sociology 350-360	3	3
Social Welfare 340		3
Psychology 201		3
Physical Education or Air Science 251-252	1	1
Philosophy 323	2	
Government and Public Affairs 381	3	
	18	17

Junior Year Courses	Semester Hours Credit	
Economics 211-212	3	3
Psychology 321	3	
Sociology 300-410	3	3
Social Welfare 350-360	4	3
Social Welfare 400		3
Social Welfare 380		3
English 310	2	
Elective		3
	15	18

Senior Year Courses	Semester Hours Credit	
Sociology 460	3	
Social Welfare 450	3	
Electives	6	
Social Welfare Elective	6	
Social Welfare 410		12
Social Welfare 420		3
Social Welfare 490		1
	18	16

GENERALIST/CONCENTRATION IN CHILD WELFARE

Freshman Year Courses	Semester Hours Credit	
English 101-102	3	3
History 201-202	3	3
Mathematics 111-112	4	3
Sociology 211	3	
Physical Education or Air Science	1	1
Speech 220		3
Art 133		2
Social Welfare 100	1	
Government and Public Affairs 221		3
	15	18

Sophomore Year Courses	Semester Hours Credit	
English 211-212	3	3
Biophysics 121-122	3	3
Psychology 201	3	3
Social Welfare 320-330	2	3
Child Development and Family Relations 201	3	
Physical Education or Air Science 251-252	1	1
Philosophy 323	2	
Social Welfare 340		2
Sociology 360		3
Government and Public Affairs 381	3	
	18	17

Junior Year Courses	Semester Hours Credit	
Economics 211-212	3	3
Psychology 321	3	
Sociology 300-410	3	3
Social Welfare 350-360	4	3
Child Development and Family Relations 351		3
Social Welfare 380		3
English 310	2	
Social Welfare 400-440	3	3
	18	18

Senior Year Courses	Semester Hours Credit	
Sociology 410	3	
Social Welfare 450	3	
Social Welfare 444	3	
Social Welfare 442	3	
Sociology 460	3	
Social Welfare 410		12
Scial Welfare 420		3
Social Welfare 490		1
	15	16

GENERALIST/CONCENTRATION IN HEALTH CARE

Freshman Year Courses	Semester Hours Credit	
English 101-102	3	3
History 201-202	3	3
Mathematics 111-112	4	3
Sociology 211	3	
Physical Education or Air Science	1	1
Speech 220		3
Art 133		1
Social Welfare 100	1	
Government and Public Affairs 221		3
	15	18

Sophomore Year Courses	Semester Hours Credit	
English 211-212	3	3
Biophysics 121-122	3	3
Psychology 201	3	
Social Welfare 320-330	2	3
Social Welfare 340		2
Health Care Administration 201	3	
Psychology 201		3
Government and Public Affairs 381	3	
Philosophy 323		2
Physical Education or Air Science	1	1
	18	17

Junior Year Courses	Semester Hours Credit	
Economics 211-212	3	3
English 310	2	
Psychlogy 321	3	
Sociology 300	3	
Social Welfare 380		3
Social Welfare 350-360	4	3
Social Welfare 400		3
Sociology 410	3	
Health Care Administration 332		3
	18	15

Senior Year Courses	Semester Hours Credit	
Sociology 460	3	
Social Welfare 450	3	
Social Welfare 410		12
Social Welfare 420		3
Social Welfare 490		1
Social Welfare 401	3	
Social Welfare 402	3	
Social Welfare 470	3	
Social Welfare Elective	3	
	18	16

GENERALIST/CONCENTRATION IN GERONTOLOGY

The gerontology curriculum is designed to: (1) increase student understanding of the aging process and older adults; (2) prepare students for work with and in behalf of older people; and (3) provide a basic body of knowledge to those who wish to pursue graduate study in gerontology.

Students who minor in gerontology must complete a minimum of 15 semester hours beyond the introductory course. See Social Welfare Department Head for concentration requirements.

COURSE OFFERINGS

100. Orientation. (1) A course required of all freshmen in the Department of Social Welfare. Designed to the University, and to acquaint him with opportunities for study and employment in the various areas of Social Work.

320. Human Behavior and Social Environment. (2) Analyzes the professional process and shows how the psychological and behavioral concepts drawn from the theories can be used by those preparing for the helping profession. It emphasizes understanding the functioning of human beings as it relates to their social environment.

330. Introduction to Social Welfare. (3) This course is designed to give students a historical and current overview of the social welfare system and the field of social work. It proposes to examine basic social work concepts, the social welfare structure and services within the system, and the interventive methods utilized within the various social services. Prerequisite: 320.

340. Social Policy. (2) This course is designed to examine the interrelationships of history, politics, philosophy, sociology, and economics, and their influence in the development of the social welfare services. Prerequisites: 320 and 330.

350. Intervention Methods. (3) Interventive methods is an overview of social casework and groupwork as a method and process emphasizing fundamental concepts, values and principles. It is geared toward developing a conceptual framework for casework and groupwork practice based on problem-person-situation perspective which has problem-solving, growth-promoting, therapeutic, and educational dimensions. Interviewing skills and techniques will be developed through a laboratory experience. Prerequisites: 320, 330, and 340.

350L. Interventive Methods Laboratory (Casework-Group Work). (1) This course is designed to provide students with a veiw of what is involved in problem-solving situations at the beginning level of social work practice through simulated laboratory activities, i.e. role-playing, use of tape recorder, film, dictaphone, etc. Major emphasis is on developing interviewing, recording, and diagnostic skills and techniques in the casework-group work situations. The basic objective is to develop an awareness and familiarize students with the integration of theory and practice. This course is to be taken concurrently with SW 350.

360. Interventive Methods—Community Organization. (3) A course designed to show how the community organizer mobilizes individuals to work together to solve community problems, set priorities, assess community resources, and develop strategies for effecting change to meet community needs. An examination will be made of various techniques utilized by organizers to reach different goals. Prerequisites: 320, 330, 340, and 350.

SW 380. Social Welfare Research. (3) This introductory research course allows social welfare students to gain a theoretical and practical knowledge of the tools of the social

welfare research methodology. It is oriented toward teaching the principles of conceptualization, research design, and research proposal writing. In this context students also discover a number of methods and techniques which are available for the implementation of sound research. They are encouraged to develop research proposals centered around realistically conceived, practical problems. Prerequisites: 320, 330, 340, 350, 360, Soc. 300.

400. Social Work Intervention in Health. (3) This course is designed to acquaint the student with the symptoms, etiology, physical and emotional aspects of acute and chronic diseases, illness and disabilities with the development of comprehensive medicine involving the whole person in his milieu. Emphasis will be placed on acquiring knowledge regarding social aspects of illness, utilization of community resources for the continuation and preventative methods. One hour per week will be devoted to participatory-observation at a health related agency. Prerequisites: 320, 330, 340 and 350.

401. Disability and Rehabilitation: Social Work Intervention. (3) This course is designed to acquaint students with the organization, legislative provisions and rehabilitation procedures for physically and mentally handicapped adults. Consideration will be given to causes, incidence and nature of various handicaps, diagnosis, treatment, education, training, placement and follow-up. Prerequisites: 320, 330, 340, 350, 360, and 400.

402. Mental Health: Clinical Intervention and Services. (3) This course will provide and overview of current planning and service activities. Major issues and problems in the mental health field will be examined. Beginning skills applicable to the mental health fields will be emphasized. Prerequisites: 320, 330, 340, 350, 360, and 400.

410. Field Experience. (12) The purpose of field experience is to provide the student with the opportunity to apply and integrate academic content and to develop skills that meet the requirements for beginning professional Social Work practice. Supervision in the field will be provided by a qualified practitioner committed to undergraduate Social Welfare Education. Social Welfare majors at Tennessee State University will be required to spend 375 clock hours in an educational oriented field experience (one semester). Seniors are admitted upon recommendation of their major advisor.

420. Field Experience Seminar. (3) Gives students in field experience an opportunity to discuss and share agency experiences. Discussion in the Seminar moves from the level of personal experience to the level of analysis, generalization and abstraction. Taken concurrently with 410.

430. Community Problems. (2) This course is designed to give individual and group study or research on problems which contribute to physical, socio-economic and political breakdown within the community. Prerequisites: 320, 330, 340, 350, and 360.

440. Case Work Services for Children and Adolescents. (3) This course will provide general knowledge of the basic concepts and principles of casework theory and practice as a method of helping children and adolescents with their social problems. It will acquaint students with the social agencies and the social welfare system and their roles in providing services to children, youth. The course will also increase the student's understanding of the adolescent peer group, family relationships, emotional and physical development and role. Prerequisite: ECED 201, 351; S.W. 320, 330, 340, 350, and 360.

442. Methods of Treatment for Children/Youth. (3) The course is designed to focus on the social treatment of children and youth with a comprehensive coverage of roles and functioning of the social worker in bringing about individual change. Emphasis will be placed on treatment goals and purposes, techniques of intervention and the utilization of appropriate intervention in the social environment. Prerequisites: ECED 201, 351; S.W. 320, 330, 340, 350, 360 & 440.

444. Family Dynamics: Diagnosis and Treatment. (3) This course is designed to focus on the family as a dynamic, interacting system interrelated with other systems. It identifies methods generally employed in evaluating and treating the family unit. Selected theories will be applied to a variety of family types and will demonstrate the implementation of these theories in practice. Prerequisites: ECED 201, 351; S.W. 320, 330, 340, 350, 360, and 440.

450. Analytical Review of Social Welfare Literature. (3) This course is designed to assist the student in developing more adequate knowledge of social work and social science literature and to further develop skills in reading, writing and reporting in critical and analytical methods. Prerequisites: 320, 330, 350, 360, and 380.

460. Social Work with minorities and women. (2) The practice of social work with ethnic minorities and women will be the focus of this course. Political, economic and social issues will be examined as well as social policy and social welfare services in terms of their impact on minorities. The varied social work interventive methods are discussed to determine the applicability to minority problems.

470. Social Gerontology. (3) A course designed to examine the aging process, and its impact upon the individual, the family, and society. Emphasis is placed on the physical, psychological, and sociological aspects of aging. An interdisciplinary approach will be used in dealing with these aspects to enhance and enrich the understanding of the life process. Prerequisites: 320, 330, 340, 350, 360 and 400.

480H. Honors Social Welfare. (3) An opportunity for students, through seminar and field trip experiences, to examine more analytically current social problems such as health, income maintenance, social realtionships etc., that are related to the social work profession and the social welfare system. Students will independently study a specific problem area of interest and are required to submit a senior essay. Limited to students with 3.0 average. Prerequisites: 320, 330, 340, 350, and 360.

490. Senior Seminar. (1) This course is designed to: (1) initiate areas of interest through discussion; (2) emphasize new trends and contributions to the field; and (3) to familiarize students with the Civil Service Merit Examinations and other techniques for gaining employment. Offered to second semester seniors.

*See Gerontology 2100.

Students in the Health Care & Gerontology Concentration may elect any of the following courses offered through the Center on Aging.

Gerontology 472. Psychosocial Care of the Aged. (3) An analysis of the psychosocial needs of older adults, whether residing in an institution or in the community. Emphais will be placed on physical, pyschological, and social factors related to health care for older people. Institutional Care and alternatives to institutional care will also be considered.

Gerontology 474. Social Psychology of the Aging. (3) Consideration of attitudinal and behavioral continuity and change across the *life span* with primary emphasis on continuity and change in old age. Attention on sociol-psychological theories of aging, age norms, age stereo types, and adult socialization.

Gerontology 476. Environmental Aspects of Aging. (3) A consideration of special and perceptual problems facing most older adults. Topics for consideration include sensory deprivation, privacy, personal lifespace and age-mix versus age-homogeneous environments.

CAREER OPPORTUNITIES

Career opportunities include employment at entry level social work positions in public and private agencies including Departments of:

Human Services

Public Health

Mental Health

Mental Retardation

Corrections

Social Security

Social Services in Hospitals

Community Health Centers

Family and Children Services

Public and Private Nursing Homes

Homes for the Aged

Day Care Centers

Planned Parenthood Centers

Senior Citizens Centers

Gerontology

Gerontology 210. (see also Social Welfare 470) Introduction to Gerontology. (3) A course designed to examine the aging process and its impact upon the individual, the family and society. Emphasis is placed on physical, psychological and sociological aspects of aging. An interdisciplinary approach will be used in dealing with these aspects to enhance and enrich the understanding of the life process. The role and function of the Gerontology specialist will also be examined.

Gerontology 400. Special Topics. (3) Student or faculty generated course. Scope of subject matter to be determined by students and instructor. Prerequisite: Permission of instructor.

Gerontology 411. Field Experience. (3) Supervised experience in the delivery of services to older adults in a community setting. May be repeated up to a maximum of 6 hours. Prerequisite: Permission of instructor and nine hours of gerontology.

Gerontology 472. Psychosocial Care of the Aged. (3) An analysis of the psychosocial needs of older adults, whether residing in an institution or in the community. Emphasis will be placed on physical, psychological, and social factors related to health care for older people. Institutional care and alternatives to institutional care will also be considered.

Gerontology 474. Social Psychology of the Aging. (3) Consideration of attitudinal and behavioral continuity and change across the life span with primary emphasis on continuity and change in old age. Attention on sociopsychological theories of aging, age norms, age stereo types, and adult socialization. Prerequisite: Gerontology 472.

Gerontology 476. Environmental Aspects of Aging. (3) A consideration of special and perceptual problems facing more older adults. Topics for consideration include sensory deprivation, privacy, personal life-space and age-mix versus age-homogeneous environments.

Gerontology 483. Sociology of Aging. (3) Investigation of the aged as a social minority and subculture in society; role changes in middle and old age; significance of increase in the proportion of the aged in terms of employment, welfare, retirement and political power. Prerequisite: Gerontology 210.

Gerontology 494-495. Readings and Research. (3, 3) Independent study and research under faculty guidance. Prerequisite: 12 hours of upper division gerontology.

DEPARTMENT OF SOCIOLOGY

DR. JONES (Head)

The courses in Sociology are designed to meet the following objectives: (1) to increase the student's comprehension of human nature, society and culture and of major social problems of the day; (2) to provide broad pre-professional education for those students interested in pursuing graduate work in such fields as guidance and counseling, law, urban and regional planning, and social work; and (3) to give a basic body of knowledge for those who may enter graduate work in specialized areas of Sociology.

The curricula in Sociology offer courses of study leading to two Bachelor of Science degrees: B.S. in Sociology and B.S. in Sociology with teacher certification in Social Studies.

Students in the curricula are required to take a minimum of one major and one minor.

The Department of Sociology participates in an interdisciplinary concentration in Urban Affairs in cooperation with the Department of Government and Public Affairs. Courses are taught in conjunction with the Social Science Laboratory and computer facility. The Urban Affairs concentration is open to those students who elect to pursue it.

Career opportunities for students completing the Bachelor of Science degree in Sociology and not choosing to enter graduate or professional schools include employment in (1) a variety of local, state, or federal social service and community agencies—housing, juvenile court and juvenile correctional facilities, adult correctional institutions, planning agencies, mental health and drug counseling centers, youth guidance agencies, community organization, and the like—, (2) teaching sociology and other social sciences in high school, (3) management and management trainee programs for retail establishments, manufacturers, insurance companies, banks, telephone and other utility companies, (4) publishers' college sales representatives, (5) newspaper journalism, and (6) the ministry.

Requirements for graduation: (1) A student must complete a minimum of 132 semester hours of work for the bachelor's degree. (2) At least 60 of the semester hours must be in courses on the 300 and 400 level. (3) Thirty semester hours are to be completed in sociology with a minimum of 24 semester hours on the 300 and 400 level.

Students who minor in sociology must complete a minimum of 15 semester hours in 300 and 400 level courses in addition to the introductory course, Sociology 211.

CURRICULUM FOR A MAJOR IN SOCIOLOGY
(Bachelor of Science Degree)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HIST 201-02	3	3
SOC 100	1	
ART 133; MUS 131; or THEA 120 (Choose 2)		4
MATH 111	4	
PE or AFROTC	1	1
HLTH 151		2
SOC 211	3	
Electives		4
	15	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
PSY 201-02 or 242	3	3
ENG 211-12	3	3
SCI 121-22	3	3
SOC 330	3	
PE or AFROTC	1	1
ECON 211	3	
Electives		6
	16	16

JUNIOR YEAR	Credit Hours Fall	Spring
ENG 310		3
SOC 300	3	
SOC 360	3	
SOC 451		3
GPA 221-22	3	3
SOC (300-400 level)	6	3
MINOR (300-400 level)	3	3
Electives (300-400 level)		3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
SOC 452	3	
SOC 490	3	
MINOR (300-400 level)	6	6
Electives (300-400 level)	6	6
Electives (any level)		2
	18	14

A minimum of 132 semester hours for the Bachelor of Science degree is required.

CURRICULUM FOR A MAJOR IN SOCIOLOGY
(B.S. Degree with Certification in Social Studies)*

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HIST 201-02	3	3
GEOG 171-72	3	3
MATH 111; SOC 211	4	3
PE or AFROTC	1	1
HLTH 151		2
SOC 100	1	
	15	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
PSY 201, 242	3	3
ENG 211-12	3	3
SCI 121-22	3	3
SOC 330		3
ART 133; MUS 131	2	2
HIST 301-2 or 401-2	3	3
ED 201	3	
PE or AFROTC	1	1
	18	18

JUNIOR YEAR	Credit Hours Fall	Spring
SOC 300	3	
SOC 350		3
SOC 360	3	
SOC 451		3
PSY 312		3
GPA 221-22	3	3
ECON 211-12	3	3
ED 301	3	
ED 387		3
ENG 310	3	
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
SOC (300-400 level)	6	
SOC 452	3	
SOC 490	3	
ED 465	3	
HIST 371		3
ED 491		3
ED 472		9
	15	15

*If a student takes a lighter load during the sophomore or junior years, work may be completed in summer sessions between the freshman and sophomore years, sophomore and junior years, or junior and senior years. Education 472 and 491 and History 371 cannot be taken during the summer session, and they must be taken together either in the fall or the spring semester. History 371 and Education 491 are to be completed during the first nine weeks of a semester and Education 472 during the last nine weeks of the same semester. Before enrolling in these courses all other Education (Educ. 201, 301, 387, 465), Psychology (Psy. 242, and 312) and three-fourths of the Social Studies courses (Economics, Geography, History, Government and Public Affairs, and Sociology) must be completed.

A minimum of 132 semester hours for the B.S. with Certification in Social Studies is required.

DEPARTMENT OF SOCIOLOGY

COURSE OFFERINGS

SOCIOLOGY (SOC)

SOC 100. Orientation. (1) A course required of all first semester freshmen majoring in the Department of Sociology. Designed to orient the student to the University, and to acquaint him with opportunities for study and employment in sociology.

SOC 211. Introduction to Sociology. (3) Introduction to sociology as a scientific discipline. Subject matter includes sociological concepts, sociological processes, and social institutions. Prerequisite to all other courses in the department.

SOC 300. Social Statistics. (3) Introduction to elementary statistics. Emphasis on analysis and interpretation of social survey data.

SOC 310. Sex, Gender and Social Interaction. (3) An examination of the difference between sex as a biophysical attribute of human beings and gender as a set of normatively-assigned attributes; source and interpretations of the differences between sex and gender; and the relationship between sex, gender and the way human beings participate in social roles.

SOC 330. Social Problems. (3) Analysis and treatment of behavioral and structural problems in society.

SOC 340. Problems of Courtship and Marriage. (3) A critical approach to problems of courtship, marriage, and the family with emphasis on mate selection, marital roles and adjustment, economic problems, women and the family, and parent-child relationships.

SOC 350. Social Psychology. (3) Analysis of the social act. Topics include socialization, symboling system, social status and social role, personality, small group analysis and research.

SOC 355. Social Movements. (3) Development, organization, and function of social movements, especially ideology, leadership, and organization of political, religious, and other types of social movements.

SOC 360. The Family. (3) Development and change in the family as a social institution are examined through the use of cross-cultural materials. The development of family expectations and roles, cultural conditioning and learning, emotional interaction, mate selection, and family unity. Attention to changes currently affecting the American family.

SOC 370. Minority Group Problems. (3) Examination of the problems, relationships and adjustments of racial, cultural, and ethnic minorities. Emphasis on the nature of these phenomena as they occur in the American social setting.

SOC 375. Sociology of Sports. (3) Focuses on social mobility, environmental adjustments, and problems of male and female athletes. Some attention to such factors as race, cultural background of various ethnic groups, and other factors involved in apparent group superiority in some sports.

SOC 380. Industrial Sociology. The human relations of modern business and industrial organization, the interdependence of the technological and social factors and some implications for the adjustment of the individual on the job and in the community.

SOC 385. Political Sociology. (3) Sociological analysis of the American political system. Attention given to the concept of power, elitist-pluralist controversy, end-of-ideology debate, and related topics.

SOC 390. Black Nationalism: A Sociological Analysis. (3) Analysis of Frazier's concept of the Afro-American community as a nation-within-a-nation, the evolution of national consciousness from domestic to international form, race consciousness, and Black Nationalism.

SOC 395. Racism: A Sociological Analysis. (3) In-depth analysis of the historical development and perpetuation of racism in the society and examination of the influences of racism on the social institutions within the Black community.

SOC 400. Criminology. (3) An examination of the problems of crime and criminals, the making of the criminal, the theories of crime and punishment, machinery employed in dealing with the criminal, penal and correctional institutions and programs of correction. Case studies and visits to institutions serve as aids in enriching understanding.

SOC 410. Juvenile Delinquency. (3) Examination of the theories of juvenile delinquency, the problems, the making, the punishment, and the correction of the delinquent. Considers the machinery employed in dealing with the delinquent. Visits to the institutions will be made available.

SOC 415. Sociology and the Future. (3) Beginning with methodologies for studying the future, this course applies those methodologies to trends concerning population, organization, environmental resources, technology, the mass media, and the military for the purpose of developing and evaluating alternate futures.

SOC 420. Population Problems. (3) Growth and change in the composition and distribution of population in the world and in the United States. Basic demographic concepts, theories of population growth and decline, and population policies.

SOC 430. Sociology of Child Development. (3) A study of the development of the child with emphasis upon a distinct sociological approach to behavior in relation to the family, play groups, school situations, the community, and large social institutions. Designed to acquaint prospective teachers and majors in sociology with the influences of social institutions upon the child's total development.

SOC 440. Rural Sociology. (3) A cross-cultural examination of rural life in the past and the present, focuses on change and processes of change.

SOC 445. The Sociology of Religion. (3) Interrelationship of society, culture, and religion.

SOC 451. Introduction to Social Research. (3) Study of the theory and methods of social research. Topics include formulating hypotheses, techniques of collecting data, such as interviews, questionnaires, the survey, and computer analysis and interpretation of research data. Prerequisites: SOC 211 and SOC 300.

SOC 452. Senior Project Writing. Designed to orient the student toward the application of sociological knowledge and experience systematically to a specific problem. The project writing must be in one of the three following areas:

OPTION A—A supervised content analysis involving a critical and systematic examination and survey of literature dealing with one or more social problems. The outline of the problem to be examined must be approved before initiating the analysis. Prerequisites: SOC 300 and SOC 451.

OPTION B—A supervised internship program in which students conduct social research in conjunction with local community agencies; the purpose is to provide field experience in research related to urban organization. Prerequisites: SOC 300, 451, and 460.

OPTION C—A supervised analytical project involving the critical examination of operations and functions of two or more community service agencies, private or public, for dealing with specific and or multiple social problems within the framework of group dynamics of (b) a survey of individual's or groups' attitudes toward a social situation or problem. Research design should be developed and approved before project is initiated. Prerequisites: SOC 300 and SOC 451.

SOC 460. Urban Sociology. (3) Growth of urbanism throughout the world, development of urban areas, internal structure of the city, metropolitan areas, urban fringe and suburban areas, and analysis of social institutions in urban and metropolitan areas.

SOC 465. Complex Organizations. (3) Structure and function of formal organizations and the interrelationships of organizational variables, such as, power, authority, influence, efficiency, hierarchy, and stability.

SOC 470. Social Stratification. (3) Study of social inequality, causes and consequences. Topics include class, status, power, probability, and change.

SOC 475. Introduction to Medical Sociology. (3) A survey of the major concerns of medical sociology and social psychiatry. Emphasis is placed on such topics as distribution of disease in society, the organization of the health professions, social change and health care, death and dying, stress and disease and social factors affecting the utilization of health services.

SOC 480. Collective Behavior. (3) Analysis of a wide variety of collective groupings and movements; their origin, organization, membership, leadership, and dissolution. Includes analysis of such social phenomena as audiences, publics, crowds, mobs, fads, and fashions, and mass movements such as social unrest and reform.

SOC 490. Sociological Thought. (3) An introductory survey of the development of the field of sociology during the nineteenth and early twentieth centuries. Major emphasis on the intellectual traditions which gave rise to sociology as a separate discipline. Theorists include Comte, Marx, Weber, Durkheim, and others.

SOC 491. Sociological Theory. (3) A survey and analysis of the development of sociological theory in the twentieth century with emphasis on theory in American sociology and theory construction.

SOC 495A, 495B, 495C, and 495D. Independent Study and Readings. (3) Designed to allow students to work independently or in groups on topics of special interest not covered in depth in course offerings. Work may be done in a tutorial relationship with an individual faculty member or in a seminar.

ANTHROPOLOGY
(ANTH)

ANTH 210. Human Prehistory. (3) Introduction to the prehistory of man—findings and methods with special attention to the biological and cultural development of man up to the beginning of writing.

ANTH 230. Introduction to Cultural Anthropology. (3) The nature of culture and society. Concepts and theories in terms of social structure, social organization, ecology, change and the role of the individual.

ANTH 310. Comparative Social Structure. (3) Principles of organization of persons into kinship, political, ritual, and other groups. Analysis of rights and duties of persons according to institutional context. Prerequisite: ANTH 230.

ANTH 330. Principles of Cultural Anthroplogy. (3) Basic concepts and objectives in study of culture. Range of cultural phenomena and approaches to its study. Prerequisite: ANTH 230.

ANTH 340. Religion of Primitive Peoples. Religions of non-literate peoples. Place of religion in their social and cultural systems.

ANTH 360. Archaeology of United States and Canada. (3) Survey of prehistoric peoples north of Mexico from initial occupation to European contact. ANTH 210 and 230 recommended prerequisites.

ANTH 380. Language and Culture. (3) Relationship between linguistic categories and patterns of culture. Prerequisites: ANTH 230.

ANTH 400. Special Topics. (3) Student-or-faculty generated course. Scope of subject matter to be determined by students and instructor. Prerequisite: Permission of the instructor.

ANTH 410. Indians of the Southwest United States. (3) Survey of Southwestern Indian cultures with emphasis on Pueblos. Lifeways of Southwestern Indians before and after European contact. Prerequisite: ANTH 230 or consent of instructor.

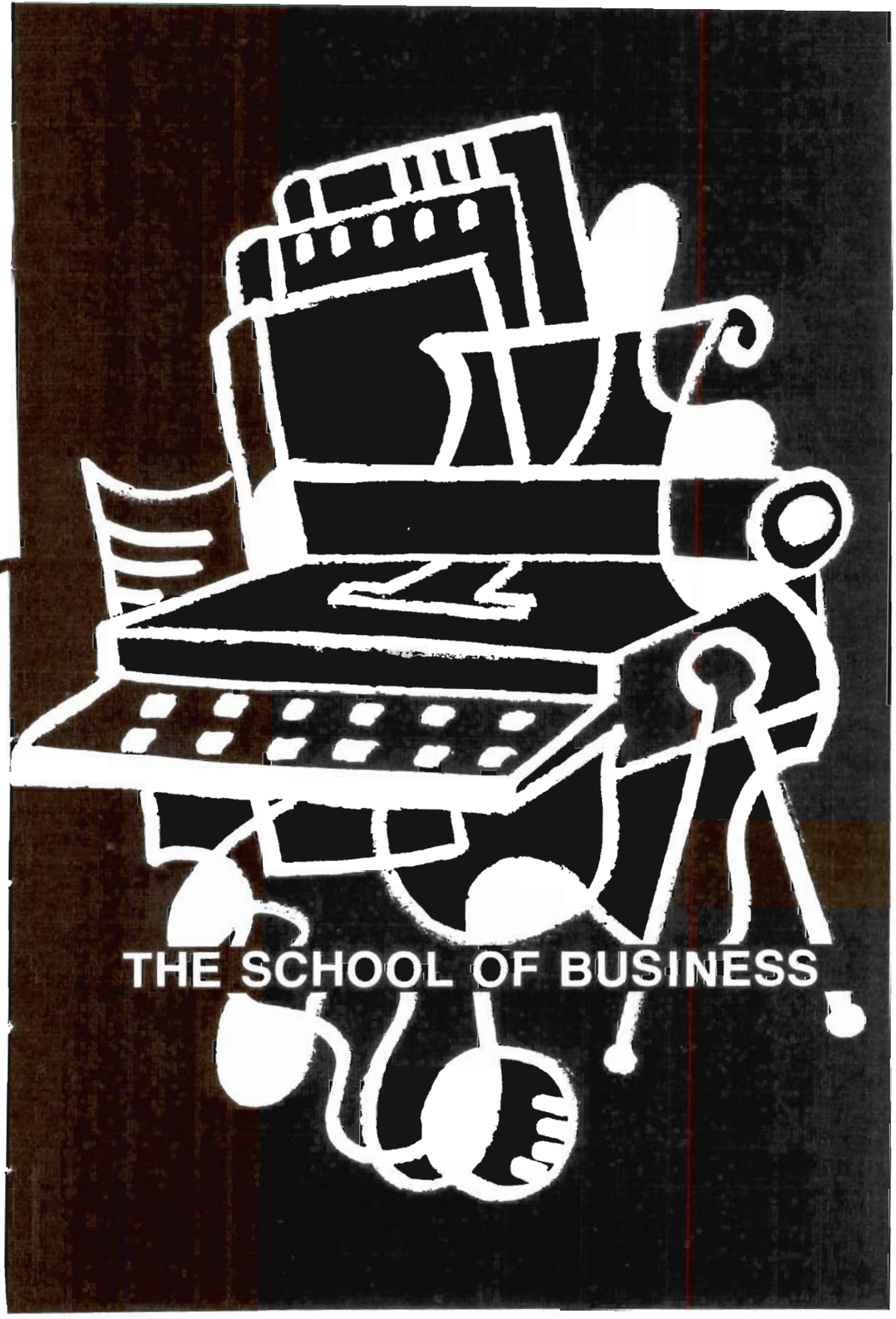
ANTH 440. Fieldwork in Archaeology. (3-9) Practicum work surveying, excavating, processing, and analyzing of data; intensive reading. Prerequisites: ANTH 210, 230, and permission of instructor. May be repeated to a maximum of 9 credit hours.

ANTH 445. Urban Anthropology. Survey of theoretical and methodological issues anthropolgists encounter researching cross-cultural urban settlements. Focus is on anthropological perspective and urban problems and planning. Prerequisite: ANTH 230.

ANTH 455. Indians of the Southeast United States. (3) Survey of Southeastern Indian cultures; emphasis on aboriginal adjustment to environment; lifeways of Southeastern American groups prior to Euro-American contact. Prerequisites: ANTH 230 or consent of insructor.

ANTH 460. Method and Theory in American Archaeology. (3) Historical development of New World Archaeology with emphasis on theory and field techniques. Prerequisites: 210 or pemission of instructor.

ANTH 498-99. Undergraduate Reading and Research in Anthropology. (3,3) Individual study and research under faculty guidance. Prerequisites: 12 hours of 300-400 level anthropology and pemission of instructor.


THE SCHOOL OF BUSINESS

THE SCHOOL OF BUSINESS

John T. Masten, Ph.D., Dean

The programs of the School of Business are designed to prepare students to perform competently in the business world and to cope with the complex problems of business organizations. The specific program goals are:

1. To provide students with an understanding of the intricacies in business.
2. To provide training in modern business principles.
3. To provide students with a sound foundation for successful business careers.
4. To provide students with a knowledge and understanding of the changing developing character of our economy.
5. To educate students for the teaching of business subjects on the secondary and collegiate levels.

Public Service

Professional development programs are offered to people within the Community, region and state. Entrepreneurs and business organizations in small and large enterprise environments, private, commercial and industrial employment areas, as well as public employment organizations, are served by the School through its faculty involvement.

Organization

The School of Business is organized into four departments: Accounting, Business Administration, Economics and Finance, and Business Education and Office Administration. Bachelor of Science degrees are offered in Business Administration with emphasis in Accounting or Economics and Finance, Business Education, and Office Administration. In addition, an Associate of Science Degree program is available for students who wish to prepare for a career as an executive secretary or a legal secretary with paralegal responsibilities.

Student Services

When the students are admitted to the School, each student is assigned to a faculty member who serves as the student's major advisor until completion of the student's degree objective. A full-time Counselor is also available. A variety of experimental activities such as cooperative education, internship, and career seminars are provided to guide the students toward careers in which they can perform successfully.

Student Organizations

The following business student organizations are available to business

students: Delta Mu Delta National Honor Society in Business Administration; Pi Omega Pi National Business Teacher Education Honor Society; Phi Gamma Nu National Professional Society for Women in Business; Phi Beta Lambda National Business Fraternity; and The National Collegiate Association for Secretaries.

Scholarships

Scholarships are available for students who achieve high academic standing. Some are sponsored by business and industry; such as, the American Institute of Certified Public Accountants and Honeywell, Incorporated. The Lewis Ross Holland Scholarship is awarded annually to a junior student who has outstanding scholarship and leadership records.

ADMISSION TO THE BUSINESS ADMINISTRATION UNDERGRADUATE PROGRAMS

Applicants seeking admission to an undergraduate program in the School of Business must meet the following stipulations:

1. Satisfy the general admission requirements of the University as described in the Tennessee State University Catalog in force at the time the application is filed, plus the sophomore business core requirements of Principles of Accounting (6 hrs), Principles of Economics (6 hrs), Computer Science (3 hrs), and Statistics (6).
2. Have completed, at the time of application, at least 75% of the "general education requirements" as specified by the School of Business. These courses may be taken at the University or transferred in from other institutions that meet the standards of recognized collegiate schools of business. However, **all** of the "general education requirements" must be completed before the student's application is finally approved.
   Students completing one or more of the "general education requirements" six years prior to applying for admission shall be required to demonstrate proficiency in the subject area in question. Remedial courses, proficiency examinations, and the CLEP examination are validating techniques available.
   Transfer students from institutions not accredited by the regional accrediting agency, and from community colleges, may be required to validate proficiency in subject areas.
3. Have achieved a cumulative grade point average (GPA) of 2.00 on a 4.00 grading scale, as computed by the Office of Admissions and Records at Tennessee State University, at the time the application is approved.
4. File an "Application for Admission to the School of Business" and submit an up-dated transcript(s) of all course work completed.

REQUIREMENTS FOR THE DEGREE BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION (B.S.)

To satisfy the requirements for a Bachelor's Degree in Business, the student must complete the following:

General Requirements	**Semester Hours**
English 101-2	6
Natural Science 121-2	6
Math 112-3	7
Social Sciences	
History	6
Other	3
Economics-Principles 211-2	6
English Literature 211-2	6
Computer Science QM 215	3
Humanities	4
	47
Non-Business Electives:*	
(Psych. 201 and Speech 230 recommended)	15
	62
P.E./R.O.T.C./Band/Health	4

Business Core Requirements		**Semester Hours**
Tool Areas:	Accounting (AC 211-2)	6
	Business Communications (BE 315)	3
	Legal Environment (BL 300)	3
	Quantitative Methods (QM 201-2)	6
	Inf. Systems (MG 323)	3
Functional Areas:		
	Finance (FN 330)	3
	Production & Operations Management I (MG 302)	3
	Basic Marketing (MK 301)	3
General Areas:		
	Organization Theory & Behavior (MG 301)	3
	Business Policy (MG 450)	3
		36
Business Electives Requirements		6
Major Requirements		24
	Required Total Semester Hours	132

*Except for Business Education majors, students may substitute courses from other areas.

Degree Requirements

Before a degree is conferred through the School of Business, the student must meet the following:

1. Satisfy all degree requirements of the University and the School of Business as specified in the University Catalog in force at the time of entrance into the University.
2. Earn a minimum grade of "C" (2.0 on a 4.0 system) in each course attempted in the "major" field.
3. Complete the final 30 semester hours of course work in residence at the University.

SUGGESTED FOUR-YEAR COURSE PATTERN FOR THE BACHELOR OF SCIENCE DEGREE PROGRAMS IN THE SCHOOL OF BUSINESS

FRESHMAN YEAR	Credit Hours	
General Requirements	Fall	Spring
ENG 101-02	3	3
SOC SCI (Hist 201-02)	3	3
NAT SCI	3	3
MATH 112-13	3	4
PE/ROTC/BAND/HLTH	1	1
*Non-Business Electives (PSY 201 recom'ded)	3	3
	16	17

SOPHOMORE YEAR	Credit Hours	
General Requirements	Fall	Spring
SOC SCI	3	
ENG-LIT 211-12	3	3
ECO-PRIN 211-12	3	3
HUM	2	2
PE/ROTC/BAND/HLTH	1	1
COMP SCI QM 215		3
BUSINESS CORE		
ACC PRIN 211-12	3	3
QUANT METH	3	3
	18	18

JUNIOR YEAR	Credit Hours	
General Education	Fall	Spring
*Non-Bus Electives (SPEECH 230 recom'ded)	3	3
Business Core		
BUS COMM (BE 315)	3	
FINANCE (FN 330)		3
INF SYS (MG 323)	3	
MAN-ORG THEORY & BEHAV (MG 301)	3	
MARK (MK 301)	3	
PROD & OP MAN I (MG 302)		3
MAJOR (Upper Division)		6
BUS ELECT (Uppper Division)	3	
	18	15

SENIOR YEAR	Credit Hours	
General Education	Fall	Spring
*Non-Bus Electives		3
Business Core		
LEG ENV (BL 300)	3	
BUS POL (MG 450)	3	
MAJOR	9	9
Business Electives		3
	15	15

Required Total Semester Hours: 132

*Except for Business Education majors, students may substitute courses from other areas.

Department of Accounting

DR. ROLEN (Head)

A concentration in Accounting is offered for the student who pursues a major in Business Administration and desires an emphasis in Accounting. Accounting major emphasis builds upon the basic accounting courses taken by all business administration students, with advanced study in specialized accounting areas such as managerial cost accounting, auditing, and income tax accounting. The preparation may lead to a career in public accounting or in the accounting and related departments of business enterprises. Because of the scope of accounting and its breadth of application, majors may likewise find opportunities in various agencies of the federal government, such as the Internal Revenue Service and the Federal Bureau of Investigation, and in agencies of state and municipal governments. Accounting also serves as an excellent background for those who plan legal careers in tax and corporation law.

Accounting Concentration Requirements	Semester Hours
Intermediate Accounting 311-312	6
Cost Accounting 314	3
Accounting Theory 420	3
Federal Tax Accounting 411	3
Theory & Practice of Auditing 413	3
Business Elective (Consent of advisor)	6
Total	24

Department of Business Administration

DR. REYNOLDS (Head)

The Department of Business Administration offers concentrations in (1) General Business Administration (2) Management, (3) Marketing, and (4) Real Estate and Urban Development. Students concentrating in an area of Business Administration must complete, in addition to the core and general requirements of the School of Business, the courses listed under the chosen concentration.

General Business Administration Concentration

This concentration is designed for students who prefer to acquire a broad undergraduate training in business, rather than specialize in a specific area.

The student can choose 12 hours from any functional area or concentration in business. With prior approval of a business advisor, the student can elect a maximum of two non-business courses related to a concentration:

General Business Administration Concentration Requirements	Semester Hours
Upper Division Accounting Elective	3
Economics or Finance: Upper Division Elective	3
Marketing 302, Marketing Management	3
Business Electives: Upper Division	15
Total	24

Management Concentration

The Management program provides students with the opportunity for professional preparation applicable to the management of private and public sector organizations. Examples of employment areas are: administrative management, personnel administration, industrial relations, production management, and other assignments in small, medium, and large business, as well as, government agencies, foundations, hospitals, and other service organizations.

Management Concentration Requirements	Semester Hours
MG 404 or MG 405 Organization Theory or Behavior in Organizations	3
Management Electives*	9
Total	12

*Specialization may be acquired in Personnel or Production and Operations by taking 9 hours of course work in either of those areas. Consult a management advisor for details.

Marketing Concentration

Marketing includes all activities concerned with ascertaining and satisfying the needs and desires of individual and organizational buyers/consumers. It is, consequently, a function of prime importance in all forms of organizations. The marketing program is designed to facilitate entry into marketing and to facilitate long-term professional advancement. Course emphasis is placed on marketing management.

Positions in marketing offer the opportunity for specialization or diversification. Those who choose marketing as a career will find themselves involved in product development and improvement, consumer research, pricing, promotion, sales, and distribution. Professional careers are open to marketing majors in advertising firms, research organizations, retailing and wholesaling firms, and other service organizations, as well as a wide range of manufacturing and other industries devoted to supplying goods or services to meet the needs of the consumer/buyer.

Marketing Concentration Requirements:	Semester Hours
MK 455 Marketing Strategy	3
Marketing Electives	9
Total	12

Real Estate and Urban Development Concentration:

The curriculum for the concentration in Real Estate and Urban Development is designed for those students who are interested in fields concerning the allocation of urban land resources. Accordingly, students are trained for employment in both the private and public sectors. Fields of study include real estate brokerage, appraisal, law, finance, marketing, property management, land-use planning and development, and public and private policies applicable to real estate and urban development. The curriculum is structured to provide students with an understanding of (1) the specific activities involved in urban land development, (2) the forms of economic, social, physical, and legal services that arise from land use activities, (3) the optimum distribution of residential, commercial, industrial and other specialized land uses, (4) the activities in which real estate businessmen are engaged, and (5) public and private policies and action that are designed to improve our urban environment.

A number of electives are available to enable each student to pursue a challenging area of study within individual interest and educational background.

Concentration Requirements:	Semester Hours
RE 313 Principles of Real Estate and Urban Development	3
RE 320 Urban Land Resource Analysis	3
Real Estate and Urban Development Electives	6
Total	12

Department of Economics & Finance

DR. VOWELS (Head)

The Department of Economics and Finance offers a program of instruction for those who expect to pursue careers in either economics, finance, or insurance and provides service courses for business and non-business majors. Students concentrating in Economics and Finance must complete, in addition to the core and general requirements of the School of Business, 24 hours in Economics and Finance.

The program is aimed at helping students acquire: 1) an understanding of the objectives, functions, and institutions of a private enterprise economy, 2) a fundamental and rigorous tool kit for analysis, and 3) the ability to integrate economic and finance principles with various areas of Business Administration.

Economic & Finance Concentration Requirements	Semester Hours
EC 311 Intermediate Microeconomic Theory	3
EC 312 Intermediate Macroeconomic Theory	3
FN 340 Financial Markets and Institutions	3
FN 360 Investment Theory	3
Electives* (300-level or higher)	12
Total	24

*Must have Economics/Finance/Insurance advisor's approval.

Department of Business Education & Office Administration

DR. PATTERSON (Head)

The general objectives of a major in business education or in office management are as follows: (1) to provide instruction in methods, techniques, and principles underlying modern business as a foundation for business careers; (2) to equip students with a knowledge and understanding of the changing and developing character of our economic society and the responsibility incumbent upon educated men and women engaged in economic activity; (3) to offer training in those phases of business that concern every office worker; (4) to train students as office administrators and as teachers of business subjects; (5) to promote the general objectives of education; (6) to offer exploratory and vocational information and experience in business; (7) to assist students in developing an appreciation of the place of business in society; (8) to meet individual needs of students who enter the University to prepare for positions in business organizations.

Business Education

In the Business Education curriculum, students may select a program of study with emphasis in stenography, accounting, general business, or distributive education. Business Education majors must fulfill the teacher education admission and retention requirements set forth in the University Teacher Education Program.

Business Education Certification Requirements

For certification in business education by the State of Tennessee, students may qualify for endorsement in selected areas of business by completing a core of 12 semester hours in Accounting, Economics, and two of the following: Business Law, Introduction to Business, Business Mathematics, and Business Communications, and an additional 6 semester hours in business courses.

Students completing the preceding requirements may secure single endorsements by completing the following semester hours (courses included in the preceding core requirements may be applied to the requirements for endorsements):

	Semester Hours
General Business: (Including Introduction to business or business principles, business law and business mathematics.)	6
Bookkeeping	10
Typewriting: (including 3 hours of advanced typewriting.)	6
Shorthand: (Including 3 hours of advanced shorthand.)	6
Business Law	6
Economics: (Principles and related subjects in that field.)	12
Salesmanship: (Selected from salesmanship, marketing, merchandising, advertising and retailing.)	6
Secretarial Practice: (Office practice plus certification in shorthand and typewriting.)	2
Business Machines	2
Business English	2
Business Arithmetic: (3 in mathematics and 3 in business mathematics or 6 in business mathematics.)	6
Office or Clerical Practice: (Secretarial or clerical practice.)	2
Consumer Education: (Consumer economics or consumer education.)	2

Teacher Education Core Requirements

Business Education majors must take the following University Professional Teacher Education Core:

	Semester Hours
Ed.—History and Foundation of Education	3
Psy.—Human Development and Learning	3
Ed.—School Organization, Mangement and Community Relations	3

Psy.—Measurement, Evaluation and Guidance for Classroom Teachers	3
Ed.—Curriculum Development	3
Ed.—Introduction of Special Education	3
Ed.—Reading and Study in the Secondary School	3
	21

Major Requirements

Business Education—Stenography	**Semester Hours**
*Production Typewriting OM 221	3
Business Orientation MG 100	1
Prin. of Voc. Bus. Education BE 300	3
Exec. Off. Proc. & Systems OM 330	4
Advanced Shorthand OM 307	3
Business Principles MG 101	3
Systems, Meth. & Proc. for Teaching Business Subjects BE 371	4
Student Teaching BE 472	9
	30

Business Education—Accounting	
*Production Typewriting OM 221	3
Business Orientation MG 100	1
Prin. of Voc. Bus. Education BE 300	3
Exec. Off. Proc. & Systems OM 330	4
Intermediate Accounting AC 311-312	6
Systems, Meth. & Prod. for Teaching Business Subjects BE 371	4
Student Teaching BE 472	9
	30

Business Education—General Business	
*Production Typewriting OM 221	3
Business Orientation MG 100	1
Prin. of Voc. Bus. Educ. BE 300	3
Exec. Off. Proc. & Systems OM 330	4
Consumer Economics EC 440	3
Business Principles MG 101	3
Systems, Meth. & Proc. for Teaching Bus. Subjects BE 371	4
Student Teaching BE 472	9
	30

Office Administration. Students majoring in Office Administration plan to obtain supervisory, administrative, managerial, or executive secretar-

ial positions in the office. The curriculum is designed to provide students with the knowledge and skills essential for leadership positions in the office and an appreciation for the professionalism and proficiency of office administrators.

Major Requirements	Semester Hours
OM221 *Production Typewriting	3
OM208 *Intermediate Shorthand	3
OM307 Advanced Shorthand	3
Elective	2
OM330 Executive Off. Pro. & Systems	4
OM430 Office Management	3
OM441-2 Office Internship	3-3
	24

*Students may take proficiency examinations for credit in Typewriting 121, 122, and Shorthand 207.

Associate of Science Degree Program. The Associate Degree is suggested for the student who wishes to prepare to be an executive secretary or a legal executive secretary with paralegal responsibilities. The curricula are designed to provide the student with the typewriting, shorthand, and machine skills needed by those who wish to attain a high-level secretarial or stenographic position and the knowledge and skills necessary for taking independent action and exercising judgment in an office.

ADMINISTRATIVE ASSISTANT*

First Semester	Credit Hours
ENG 101 (Fr Composition)	3
**OM 121 (Beg. Typewriting)	3
**OM 207 (Beg. Shorthand)	3
MG 101 (Bus Principles)	3
BE 172 (Math of Finance)	3
	15

Second Semester	Credit Hours
ENG 102 (Fr Composition)	3
**OM 122 (Inter. Typewriting)	3
**OM 208 (Inter. Shorthand)	3
ECO 211 (Prin. of Eco)	3
PSY 201 (Gen Psychology)	3
	15

Third Semester	Credit Hours
SP 230 (Bus & Prof Speech)	3
OM 220 (Prod. Typewriting)	3
OM 307 (Adv Shorthand)	3
QC 211 (Accounting)	3
QM 215 (Computer Science)	3
***Elective	3
	18

Fourth Semester	Credit Hours
OM 330 (Exec of Pro & Sys)	3
OM 430 (Adm Off Management)	3
BE 315 (Bus Comm)	3
OM 441 (Office Intern)	3
***Electives	6
	18

*Student must maintain 2.25 average in OM courses.
**Student may take proficiency examinations for credit in Typewriting 121, 122, and Shorthand 207 and 208.
***All electives must be approved by student's advisor.

LEGAL EXECUTIVE SECRETARY

First Semester	Credit Hours
ENG 101 (English)	3
**OM 121 (Beg. Typewriting)	3
**QM 201 (Beg. Shorthand)	3
MG 101 (Bus Principles)	3
BE 172 (Math of Finance)	3
	15

Second Semester	Credit Hours
ENG 102 (English)	3
**OM 122 (Int Typing)	3
**OM 208 (Int. Shorthand)	3
ECO 211 (Economics)	3
PSY 201 (Psychology)	3
OM 210 (Intro to Law and the Tenn. Legal Sys)	3
	18

Third Semester	Credit Hours
SP 230 (Bus and Pro Speech)	3
OM 221 (Prod Typing)	3
OM 307 (Adv Shorthand)	3
AC 211 (Accounting)	3
QM 230 (Tech Legal Prac I)	3
QM 215 (Computer Science)	3
	18

Fourth Semester	Credit Hours
OM 330 (Exec Off. Pro & Sys)	3
OM 430 (Adm Off Man)	3
BE 315 (Bus Comm)	3
OM 441 (Office Internship)	3
OM 240 (Tech Legal Prac II)	3
	15

*Student must maintain 2.25 average in OM courses.
**Student may take proficiency exams for credit in Typing 121, 122 and Shorthand 207, 208.

SCHOOL OF BUSINESS

COURSE DESCRIPTIONS

ACCOUNTING (AC)

AC 211, 212. Principles of Accounting. Including two (2) hours of lab. (3-3) Basic concepts of accounting, the accounting cycle, accounting systems including ethical considerations, and components of the financial statements. Continues with an analysis of financial data, forms of business organizations in our legal environment, departmental accounting, manufacturing, basic cost accounting, cost-volume-profit analysis, and managerial decisions. (TSU-211-12, UTN-2110-20-30)

AC 311, 312. Intermediate Accounting. (3-3) Broad theoretical structure of accounting including underlying environmental assumptions, expanded review of the accounting cycle and components of the financial statements, and future and present value concepts. Continues with a discussion of corporate capital structure, special problem areas (e.g., incomplete data, pensions, leases, and price-level accounting), and in-depth analysis of financial statements. Prerequisites: AC 212. (TSU-311-312, UTN-3110-20-30)

AC 314. Introduction to Cost Accounting. (3) Cost behavior and budgeting concepts, and system design and manufacturing cost systems including job order and process cost. Prerequisites: AC 212. (TSU-314, UTN-3210)

AC 315. Management Cost Accounting. (3) Continuation of AC 314, standard costs, budgets, analysis of cost variances for managerial purposes, direct costing and cost-volume-profit analysis. Prerequisites: AC 314. (TSU-315, UTN-3220).

AC 317. Managerial Accounting. (3) Interpretation and use of accounting data by management in planning, controlling, and decision making for business activities. CREDIT NOT ALLOWED ON ACCOUNTING MAJOR. Prerequisites: AC 212. (TSU-317, UTN-None).

AC 400. Advanced Accounting. (3) Theory and problems in partnership formation operation, and dissolution, joint ventures, installment sales, consignments, the use of actuarial science tables in accounting, governmental accounting. Prerequisites: AC 312. (TSU-AC 400, UTN-4310)

AC 401. Consolidating Interrelated Business Entities. (3) Principles and techniques of consolidated financial statements; foreign branches and subsidaries. Prerequisites: AC 312. (TSU-None, UTN-AC 4140)

AC 403. Institutional Accounting. (3) Accounting theory and practice applicable to institutions, municipalities, states and local units of government, organizations, fiscal procedures, budgetary control, classification and use of funds, auditing, financial statements and reports. Prerequisites: AC 212. (TSU-AC 320, UTN-4510)

AC 411. Federal Income Tax Accounting. (3) Determination of taxable income and other aspects of tax accounting are emphasized. Particular attention is given to preparation of Federal income tax return for individuals. Research methodology is also introduced. Prerequisite: AC 212. (TSU-AC 411, UTN-AC4410)

AC 412. Advanced Federal Income Tax Accounting. (3) Emphasis is placed on corporation, partnership, estate and trust tax returns. Consideration is also given to gift taxes, as well as research. Prerequisites: AC 411. (TSU-AC 412, UTN-4420)

AC 413. Theory and Practice of Auditing. (3) Theory and principles of audit practice and procedure in verifying accounts and supplementary data, the preparation of findings and reports in conformance with the purpose of the audit, illustrative auditor's report and the liability of an auditor. Prerequisites: AC 312. (TSU-AC413, UTN-4110)

AC 415. Accounting Systems. (3) Principles underlying the establishment of complete accounting systems and the application of such principles to typical business organization. Special emphasis on cost control. Prerequisite: AC 311.

AC 420. Accounting Theory. (3) A study of the propositions, xioms, theorems, controversial accounting concepts, authoritative statements, and research studies of professional organizations. Prerequisite: AC 311.

BUSINESS LAW (BL)

BL 300. Legal Environment of Business. (3) A study of the legal aspects of the business environment and the legal rights and potential liabilities of businessmen. The presentation of law as an expanding social and political institution in the environment of business. Includes the development and nature of the legal system; business crimes; the law of torts; constitutional limitations on regulatory powers; legislative, judicial, and administrative control of business activity through tax laws, antitrust laws, laws of employment, labor laws, and consumer and debtor protection laws. (TSU-BA323, UTN-BL-4110)

BL 323. Business Law I. (3) A study of the legal rights and potential liabilities of businessmen. Includes an introduction to the nature of the legal system; the basic law of contracts, Uniform Commercial Code, sales, secured transactions, and bankruptcy. Prerequisite: Junior standing. (TSU-None, UTN-BL4120)

BL 324. Business Law II. (3) A study of the legal rights and potential liabilities of businessmen. Includes the basic legal principles of agency; partnerships; corporations and securities; personal property and bailment; real property and environmental controls; U.C.C. and commercial paper. Prerequisite: Bu. Law 323, or adviser's consent. (TSU-None, UTN-4130)

BL 420. Personal Law. (3) Fundamental principles of American and Tennessee law analyzed through case study of the law's application to the individual. Student participation required in examining typical legal problems associated with the family home and automobile ownership, negligence, employment, death, taxation, and consumerism. (TSU-None, UTN-BL3330)

BL 430. Environmental and Land Law. (3) A survey of federal, state, and local laws on conservation and regulation of environmental and land use matters. Includes an introductory constitutional framework of environmental law and market forces, politics and administration of such laws. Prerequisite: Junior standing. (TSU-None, UTN-BL 3010)

OFFICE MANAGEMENT (OM)

OM 121-122. Beginning and Intermediate Typewriting. (3-3) A study and development of the basic typewriting skills. Students who have had typewriting should not register for the first course; they will be placed according to performance level. (TSU OA 121-122, UTN-OA 2110-2120-2130)

OM 221. Production Typewriting. (3) Sustained production of professional business papers and communications using simulated office materials; and the development of higher typewriting speeds. Prerequisite: OM 122, (TSU-OA 221, UTN-OA 2140).

OM 207-208. Beginning and Intermediate Shorthand. (3-3) Development of an understanding of the basic principles of shorthand (Gregg, Diamond Jubilee Series), and the ability to apply these principles to an extensive shorthand writing vocabulary and the acquirement of basic transcription skills.)TSU OA 207-208, UTN-OA 2310-2320-2330)

OM 307. Advanced Shorthand. (3) Increased proficiency in sustained production of mailable transcripts; and development of skills for the transcription of legal, medical, and technical materials. (Prerequisite: OM 207-208). (TSU OA 307, UTN OA 4410-4420)

OM 330. Executive Office Procedures and Systems. (4) An integrated sequence emphasizing scientific development analysis, and control of business information systems; routines for handling correspondence, internal and external communications; office machines; reprographics, records management, and word processing. (Prerequisite: Jr. Standing) (TSU OA 330, UTN OA 4520-4557)

OM 430. Administrative Office Management. (3) Systems, methods, and procedures for efficient office management. (Prerequisite: Jr. Standing) (TSU OA 430, UTN OA 4540)

OM 441-442 Office Internship (3-3). Designed to provide opportunity for full-time supervised work experience for students who have not had appropriate full-time employment. Student may enroll for three or six hours credit. Theory and reading assignments complement work experience. Evaluation of University and work supervisors required at the end of course. By consent of advisor. (TSU OA 441-442, UTN NONE)

OM 210. Introduction to Law and the Tennessee Legal System. An introduction to legal nomenclature and legal thinking; a study of document drafting through actual preparation of legal memoranda; special emphasis on the court system of Tennessee. Designed to serve as prerequisite to other office administration legal courses. (TSU NONE, UTN OA 2210)

OM 230. Techniques of Legal Practice I: Tort Claims and Workmen's Compensation. Trial preparation of tort claims and workmen's compensation. Specialized training in actual preparation of legal documents and file maintenance. Includes complaints, interrogatories, deposition, medical records, third-party practice, and settlements. (Prerequisite: Introduction to Law and the Tennessee Legal System) (TSU NONE, UTN OA 2230)

OM 240. Techniques of Legal Practice II: Real Propery and Estate Administration. The law and practices of real property, including drafting of common conveyances. A study of the more common forms of testamentary instruments including estate administration. (Prerequisite: Introduction to Law and the Tennessee Legal System). (TSU NONE, UTN OA 2240).

BUSINESS EDUCATION (BE)

BE 172. Mathematics of Finance. (3) The application of the fundamentals of mathematics to business problems with the aid of calculators. Emphasis on problems involving discounts, simple and compound interest, insurance and payroll, etc. (TSU NONE, UTN NONE)

BE 315. Business Communications. (3) Study of principles, practices, and mechanics of writing in modern business, and the ability to compose and edit business correspondence. (Prerequisite: Jr. Standing). (TSU BE 315, UTN OA 4310)

BE 335. Report Writing. (3) Designed to help students to develop a clear, concise and correct writing style: to help student collect, analyze, organize, interpret and present information to solve business problems. (Prerequisite: Jr. Standing.) (TSU BA 335, UTN OA 4320)

BE 300. Principles and Philosophy Vocational Business Education. (3) A study of the historical background, philosophy, objectives, principles, problems, and trends in vocational business education. (Prerequisite: Admission to Teacher Education Program) (TSU BE 300, UTN NONE)

BE 371 Systems, Methods, and Procedures for Teaching Business Subjects. (4) Strategies for designing procedures and directing learning in business subjects. (Prerequisite: Admission to the Teacher Education Program) (TSU BE371, UTN NONE)

BE 472. Student Teaching. (9) Actual classroom experience in secondary schools under the charge of expert teachers in cooperating schools. (Prerequisite: All methods and professional core courses) (TSU BE 472, UTN NONE)

ECONOMICS (EC)

EC 211. Principles of Economics I. (3) Methodology of economics, fundamentals of macroeconomics, fiscal policy, and fundamentals of monetary policy. Prerequisite: Math 113. (TSU-EC 211, UTN-2110-20)

EC 212. Principles of Economics II. (3) Economic growth, and microeconomics, some domestic and international applications of economics, and comparative economic systems. Prerequisite: Ec 211. (TSU-EC 212, UTN-EC 2130)

EC 221. Development of the American Economy. (3) From first settlement to present: quantity of goods and quality of life; employment and leisure; domestic and foreign commerce; poverty and affluence; money and prices, slavery, agriculture, and ghettos; business and labor; and roles and policies of governments. (TSU-None, UTN-None)

EC 311. Intermediate Microeconomic Theory. (3) The price system and allocation of resources; demand, supply and distribution. Prerequisite: Ec 212. (TSU-EC 302, UTN-3110)

EC 312. Intermediate Macroeconomic Theory. (3) Aggregate demand, aggregate supply and equilibrium level of employment; the price level, inflation and deflation. Prerequisite: Ec 212. (TSU-None, UTN-3120)

EC 320. Money and Banking. (3) Nature and functions of money; analysis of monetary systems; money creating role of commercial banks and the Federal Reserve System; determinants of money supply and demand; monetary theory and policy. Prereq: Ec 212. (TSU-EC 420, UTN-3120)

EC 330. Principles of Labor Economics. (3) A study of the labor market; American labor movement; union history, structure and philosophy; labor problem analysis; industrial disputes and labor legislation. Prerequisite: Ec 212. (TSU-EC 301, UTN-EC 3410)

EC 335. Economics Analysis and Management in Construction. (3) This survey course examines the management, economic and financial aspects of construction and construction contracts. Topics covered include the construction management concept, investment project financing and control, organization and role of record keeping in managing construction. Network analysis—CPM, PERT and the Cyclone System—provides the framework for discussing these topics. Prerequisites: By permission of instructor: Junior level students with backgrounds in business administration, engineering, architecture and accounting are particularly welcome. (TSU-None, UTN-None)

EC 340. The Economics of Poverty & Discrimination. (3) Analysis of the extent of effects of racial, sex, and age discrimination in the labor force; wage differentials, wage-earnings profiles and returns to education. Prerequisite: Permission of the Instructor. (TSU-None, UTN-None)

EC 410. International Economics. (3) Introduction to the tools and techniques of international economics analysis concerning the basic theory of free trade, tariffs and commercial policy as well as international monetary analysis. Prerequisite: Ec 212. (TSU-EC 405, UTN-EC 3210)

EC 420. Government and Business. (3) The relation of government to business in a competitive economy; prevention of monopoly and concentration through the antitrust laws; patent policy; alternatives to competition; government control and public ownership. Prerequisite: Ec 212. (TSU-None, UTN-EC 3340)

EC 430. Monetary Theory. (3) The role of money in the economy. Emphasis upon the factors that affect the demand or supply of money. Prerequisite: Ec 212. (TSU-None, UTN EC 4510).

EC 440. Consumer Economics. (3) Designed to acquaint the student with the character and significance of the factors which determine and govern consumption, particularly as they are related to the prosperity and stability of the economic system. Prerequisite: Ec 212. (TSU-EC 307, UTN-None).

EC 441. Labor Legislation. (3) The economic background and effects of governmental regulation of labor relations and efforts to provide economic security. Emphasis on the National Labor Relations Act, Fair Labor Standards Act, Social Security Act, Workmen's Compensation laws, and related matters. Prerequisite: Ec 212. (TSU-None, UTN-EC 4430 (4440)

EC 442. Collective Bargaining. (3) Organization of labor management for collective bargaining, with emphasis on the private sector. Study of subject matter and procedure for collective bargaining under the National Labor Relations Act as amended and similar legislation. Prerequisite: Ec 330, (same as MG 419). (TSU-MG 424, UTN-EC 4470).

EC 451. Public Finance. (3) Survey of institutions and theories of government finance. Effects of public expenditures; functions of public revenues; form of taxation; tax criteria; determination of tax policy; public borrowing; debt management; fiscal policy. Prerequisite: Ec 212. (TSU-None, UTN-None)

EC 452. Urban Economics. (3) Urban history, location theory, city growth, and urban problems. Prerequisite: Ec 212. (TSU-None, UTN-None).

EC 461. History of Economic Thought. (3) A review of the development of economic thought, tools of analysis and economics as a social science together with an analysis of the sociol-economic conditions which influenced this development. Period covered: 1776 through 1936. Prerequisite: Ec 212. (TUS-None, UTN-EC 4150).

EC 462. Comparative Economic Systems. (3) The study and theories underlying capitalism, fascism, socialism, communism, and other economic systems. Prerequisite: Ec 212. (TSU-EC 404, UTN-None)

EC 470. Managerial Economics. (3) Application of economic theory to business decision making; emphasis on profit objectives, measurement and forecasting demand and costs and capital budgeting. Prerequisite: Ec 212 and senior standing. (TSU-419, UTN-4110)

EC 480. Current Economic Problems. (3) Examination of key economic issues. Such major objectives as economic progress, and economic justice provide a general framework for analyzing economic growth, inflation, unemployment, public debt, income maintenance, agriculture and international economic affairs. Prerequisite: Ec 212. (TSU-EC 315, UTN-None).

EC 490. Introduction to Conflict and Cooperation in Economics. (3) Conflict theory, causes and economic consequence of war, cooperative and noncooperative games with particular reference to economic theory, oligopoly and monopoly. Prerequisite: Senior standing and Ec 311. (TSU-None, UTN-None).

EC 498-99. Independent Study in Business. (3) This course allows the outstanding student to investigate in depth approved topics of the student's choice. Individual studies will be coordinated by a senior member of the departmental faculty. Prerequisite: Permission of Department Head. (TSU-None, UTN-None).

FINANCE (FN)

FN 320. Personal Finance. (3) Personal financial goals, managing income, expenditures, borrowing, savings, and investment. No prerequisites. Recommended for non-business majors. (TSU-FI 300, UTN -FN 3010).

FN 321. Personal Investing. (3) Individual investment goals, types of investments, sources of information, analysis of risk, return, and value, portfolios, security exchanges. No prerequisites. Recommended for non-business majors. (TSU-None, UTN-FN 3340).

FN 330. Business Finance. (3) Financial goals, ratios, sources and uses of funds, asset management, capital budgeting, leverage, cost of capital, dividend policy, valuation, mergers and reorganizations, financial performance evaluation. Prerequisite: AC 212. (TSU-BA422, UTN-FN 3120/3130).

FN 335. Financial Statement Analysis. (3) Ratios, cash flow, computer analysis, proforma statements, financial projects for new businesses and financial feasibility studies, financial forecasting. Prerequisite: FN 330. (TSU-None, UTN-None).

FN 336. Credits and Collections. (3) Principles and practices of credit and collection management, consumer credit, business credit, credit investigation. Prerequisite: FN 330. (TSU-None, UTN-4210).

FN 340. Financial Markets & Institutions. (3) Operating characteristics, regulation, flows of funds, intermediation, major sectors of money and capital markets and the institutions operating therein. Prerequisite: FN 330. (TSU—None, UTN—FN 4520).

FN 350. Financial Administration. (3) The application of business finance to short cases in asset and liability management, valuation, financial analysis, operations, and planning. Prerequisite: FN 330. (TSU—None, UTN—None).

FN 360. Investment Theory. (3) Theory of investment value, investment media and strategies, risk, returns, price behavior, investment techniques, portfolios. Prerequisite: FN 330. (TSU—FI 426, UTN—FN 4120).

FN 440. Management of Fin. Institutions. (3) Decision making problems of major institutions, savings and investment companies, finance companies, insurance companies and others. Prerequisite: FN 340. (TSU—FI 331, UTN—FN 4530).

FN 445. Commercial Bank Management. (3) Organization, administration of commercial banks, balance sheet management, loans and investments. Prerequisite: FN 340. (TSU—None, UTN—FN 4550).

FN 450. Corporate Asset Management. (3) Optimum fund uses, allocation of funds capital budgeting, sophisticated techniques of analysis. Prerequisite: FN 350. (TSU—None, UTN—FN 4710).

FN 455. Financial Structure Management. (3) Optimizing sources of funds, capital structures and financing strategies, financing episodes, dividend policy, valuation, sophisticated approaches of analysis. Prerequisite: FN 350. (TSU—None, UTN—FN 4720).

FN 460. Security Analysis. (3) Fundamental and technical analysis, valuation of specific

types of securities, advanced models and techniques of analysis, securities with unique features, computer analysis of securities. Prerequisite: FN 360.(TSU—None, UTN—FN 4120).

FN 465. Portfolio Management. (3) Portfolio goals, selection, revision, performance evaluation, capital market theory, optimum risk-return relationships. Prerequisite: FN 360. (TSU—None, UTN—FN 4130).

FN 499. Independent Study in Business. (3) This course allows the outstanding student to investigate, in depth, approved business topics of the student's choice. Individual studies will be coordinated by a senior member of the departmental faculty. Prerequisite: Permission of Department Head. (TSU—None, UTN—None).

INSURANCE

IN 370. Introduction to Insurance. (3) Principles, practices, and major coverages of life, casualty and property insurance. Prerequisite: Junior standing. (TSU—BA 433, UTN—IN 3020).

IN 375. Individual Life and Health Insurance. (3) Basic life, health, and annuity contracts, risk selection procedures, government regulation. Prerequisite: IN 370. (TSU—None, UTN—IN 3030).

IN 475. Group Insurance. (3) Group life and health products, marketing underwriting, reinsurance premiums, and reserves. Prerequisite: IN 370. (TSU—None, UTN—IN 4030).

IN 485. Property and Casualty Insurance. (3) Basic property and casualty insurance contracts. Emphasis on technical aspects and coverages applicable. Prerequisite: IN 370. (TSU—None, UTN—IN 4210).

IN 499. Independent Study in Business. (3) This course allows the outstanding student to investigate, in depth, approved business topics of the student's choice. Individual studies will be coordinated by a senior member of the departmental faculty. Prerequisite: Permission of Department Head.

SCHOOL OF BUSINESS

MANAGEMENT (MG)

MG 100 Business Orientation (1) Designed to aid in the adjustment of freshmen to the college community and to the field of business. (TSU BE 100-UTN-NONE)

MG 101 Business Principles (3) A survey of the fundamental principles of business organization, banking, credit, management, salesmanship, and accounting. (For freshman business students and students in other fields.) (TSU BA 101-UTN-MG 1110)

MG 300 Business Management and Society (3) A survey of the relationships between business management and the environments with which it deals. Topics concerning managerial principles and functions as applied to business, government, and service organizations. Focus will be placed on implications of management skills and processes for business/society relationships in our changing environment. NON-BUSINESS MAJORS ONLY. NO CREDIT TOWARD BUSINESS DEGREE. (TSU-NONE-UTN-NONE)

MG 301 Management-Organization Theory and Behavior (3) Analysis of the basic managerial functions of setting objectives, planning, organizing, directing, and controlling. Introduces theoretical foundation and models for design and analysis of organizational systems, processes and human behavior in organizations, leadership, motivation, conflict in group dynamics. Emphasis will be on building predictable systems for obtaining optimal results. Prerequisite: Junior Standing (Core Course) (TSU-MG 300-UTN-MG 3010)

MG 302 Production and Operations Management I (3) Analysis and synthesis of concepts, analytical tools, and techniques used in the production of goods and services. (Includes application of mathematics and other tools for optimal decision making in the use of resources. Also integrates operational functions with other business functions.(Prerequisite: Junior standing. Math 113 and QM 202. (TSU-MG 332-UTN-MG 3110)

MG 303 Management of Service Organizations (3) Decision making in service operations such as health care and delivery, food/restaurant, hotel/motel, banking and finance, transportation, leisure, and government. Both conceptual framework and application of management techniques to problems peculiar to service organizations. Prerequisite: MG 301. (TSU NONE-UTN-NONE)

MG 304 Management Science I (3) Fundamentals of management science. Theory and application of mathematical, statistical, and operations research techniques to problems in industry business and government. Prerequisite: All core Math and QM 202. (Same as OM 300.) (TSU MS 412, UTN-MG 3210)

MG 320 Small Business Management (3) Managerial and business theory functions and processes applied to small business. Emphasis will be given to problems and practices peculiar to the establishment and operation of small business enterprises. Opportunities, hazards, strategies, and objectives will be analyzed from broad/managerial and specific functional aspects. Case studies, research selected presentation, by small business owners and other teaching methodologies will be used. Prerequisite: Senior standing; completion of core junior level business courses. (TSU MG 320-UTN-NONE)

MG 323 Information Systems Analysis (3) Information analysis and logical design concepts for business information systems. Programmed decision making, planning for information needs, integrating systems, the system development life cycle, determining system specifications and the economics of alternative systems. Prerequisite: Junior standing, QM 215, Economics. (TSU NONE-UTN-AC3630)

MG 324-25 Business Consulting and Entrepreneurship I and II (6) Opportunities for consulting with small business or generating prospects and plans for new enterprises. Provides experience that extends and solidifies what is learned in the classroom and allows students trial and error experience in a relatively protected environment. Lectures and discussion, but emphasis on problem solution by the student. Prerequisite: Approval of instructor. (TSU NONE-UTN-MG 4440, MG 4450)

MG 402 Production and Operations Management II (3) Continuation of MG 304. In depth study of operations and production problems and application of selected decision making tools and techniques used in the production of goods and services. Included will be a computer based management decision game. Prerequisite: MG 301, MG 302. (TSU NONE-UTN-MG 3120)

MG 403 Personnel Administration (3) Analysis of theories, policies, procedures, practices, regulations relevant to attracting, retaining, and directing a competent work force. Analysis of the basic personnel functions with emphasis on the fact that all managers are "personnel managers." Integration of scientific theory, procedures, instruments, and federal regulations into personnel selection, placement, promotion, wage and salary administration, employee benefits, and security programs. Prerequisite: MG 301. (TSU MG 423-UTN-MG 4460)

MG 404 Organization Theory (3) Theoretical Foundations for the study and analysis of organizations, including theory development and important research findings. Examines aspects of various systems and behavior. Emphasis will be on the dynamics, efficiency and effectiveness of organizational systems. Prerequisite: MG 301. (TSU MG 331-UTN-MG 4320)

MG 405 Behavior in Organizations (3) Theoretical foundations for the study and analysis of human behavior in complex social organizations and of related managerial problems and challanges. A study of management and behavioral science concepts. Techniques and research as applied toward increasing human productivity and individual and group satisfaction in organizational settings. Prerequisite: MG 301. (TSU MG 351-UTN-MG 4610)

MG 406 Special Topics in Personnel Administration (3) Research into selected areas of Personnel Management. Prerequisite: Completion of Management 403 with a "B" or better and approval of instructor. (TSU NONE-UTN-NONE)

MG 407 Industrial Relations (3) Labor Relations, Federal Legislation, and the collective bargaining process; case studies and arbitration cases in public and private sectors; impact of collective bargaining on the economy; Union-Management problems and opportunities in both the public and private sector. (TSU MG 424-UTN-NONE)

MG 408 Personnel Legislation and Regulations (3) Selected experts in conjunction with student participation will review new Federal legislation and administrative decisions affecting the operation of production and service systems. (External and Internal Environmental Constraints; Equal Employment and Pay regulations; OSHA, Consumer Legislation.) Prerequisite: MG 403. (TSU NONE-UTN-NONE)

MG 409 Human Resoruce Planning and Evaluation (Manpower Management Practices) (3) Forecasting future human resource needs based on organizational strategies and personal objectives. Performing management and other job audits to assess strength and weaknesses of organizational posture; formulating and administering basic policies in human resource management and development; development of comprehensive administrative processes, decision making systems, and evaluative processes. Prerequisite: MG 403. (TSU NONE-UTN-NONE)

MG 410 Compensation Administration (3) Research, review, and application of job evaluation and other methodologies as a basis for establishing and controlling personnel equitable wage, salary, and benefit programs. Included will be a review of relevant theories, methods, and practices; case analysis, review of current and pending legislation and projection of future compensation practices; and development of a comprehensive compensation plan. Prerequisite: MG 301. (TSU NONE-UTN-MG 4470)

MG 411 Operative Supervision (3) Operations (goods and services) supervision with emphasis on objectives, planning, organizing, scheduling, directing, and controlling work operations. Learning theory, employee development and training, use of resources, methods performance measurement, evaluation, and human problems will be stressed. Prerequisite: MG 301. (TSU MG 422-UTN MG 4330)

MG 412 International Business Management (3) Analysis of managerial and business theory functions and processes practiced by multinational and foreign firms. A study of the products and services, strategies, objectives, policies and organizational structures of enterprises operating in various social, economical, political, and cultural environments. Cases, research, and other teaching methodologies will be employed. Prerequisite: Senior standing. MG 301. (TSU MG 459-UTN-NONE)

MG 413 Operations Planning and Control (3) Analysis of the operations control function with application of mathematical and statistical techniques. Techniques of long and short term forecasting; material and capacity requirements, planning; integration of scheduling and operations flows into the total operation functions. Included will be a review and analysis of key supporting functions. Prerequisite: MG 302. (TSU NONE-UTN-MG 4630)

MG 415 Systems Design and Implementation (3) Principles and techniques of design including types and levels of design, documentation techniques, hardware and software evaluation, software design concepts, data base concepts, implementation and testing procedures and long run MIS planning. Prerequisite: MG 323. (TSU MG 368-UTN-Acct. 4630)

MG 416 Applied Management Practicum (3) A cooperative program with Junior Achievement of America offering a leadership role in a simulated entrepreneural experience. Prerequisite: Business degree students with senior standing, a GPA of 2.5 or better and having completed certain core business courses are eligible. For application and prerequisite details contact the Dean of the School. (TSU NONE-UTN- MG 3130)

MG 417 Seminar-Management Innovations (3) Research and review of key creative managerial innovations that revitalized dying enterprises, created new enterprises, greatly enhanced products, service, contribution, profitability growth, and such for national, foreign, or multi-national organizations. Attempts will be made to identify and assign innovative and creative action needed for specific problem areas. Prerequisite: Senior Standing (TSU NONE-UTN-NONE)

MG 418 Management Science II (3) A continuation of Management Science I. Advanced theory and application of management science tools and techniques to managerial decision. Prerequisite: MG 304. (TSU-MS 412-UTN-NONE)

MG 419 Collective Bargaining. Analysis of collective bargaining processes, procedures, legislation in private and public sector organizations. Review of current and future implications for management. (Same as EC 442.) (TSU MG 424-UTN-NONE)

MG 450 Business Policy (3) Course designed to integrate the student's knowledge of business functional area disciplines into the analysis and solution of managerial and business problems. Analysis of strategies, objectives, policies, business problems, functional areas and managerial decision making through the case study method. Written and oral reports, research, teamwork and other methodologies will be used. **A senior project is required.** Prerequisite: Completion of core business courses; senior standing. (TSU MG 450-UTN-MG 4430)

MG 480 Internship/CO-op (2-6) Supervised and approved program and learning experiences undertaken by students in governmental, business, or industry setting. Formal proposals, project objectives, or learning plans must be reviewed and approved, by faculty. Student activity and progress must be monitored, evaluated and graded by an assigned full-time faculty. Prerequisite: Consent of Advisor. (TSU BA 440-UTN-NONE)

MG 499 Independent Study in Business (3) This course allows the outstanding student to investigate, in depth, approved business topics of the students's choice. Individual studies will be coordinated by a senior member of the departmental faculty. Prerequisite: Permission of Department Head. (TSU BA 435-UTN-NONE)

MARKETING (MK)

MK 301 Basic Marketing (3) General survey of marketing in our economy. Influence of environment social, economic, ethical, legal, and technologic forces on marketing activities. Assessment of dimensions of the organizations' marketing program. Prerequisite: Junior standing and Ec 212. (TSU MK 326-UTN-MK 3110)

MK 302 Marketing Management (3) Analysis of marketing management process including identifying marketing opportunities, planning marketing programs, and implementing competitive strategies. Cases are used to help develop an understanding of decision marketing. Prerequisite: MK 301. (TSU MK 460-UTN-MK 3120)

MK 303 Sales Fundamentals (3) Covers the basic fundamentals of salesmanship, sales theory, sales techniques, sales role playing, and guest lectures by practicing sales persons. The role of personal selling in our economy is included to provide a deeper understanding of the contributions made by this marketing activity. Prerequisite: MK 301. (TSU MK 329-UTN-NONE)

MK 405 Consumer-Buyer Behavior (3) Industrial and ultimate consumer purchasing behavior. An analysis of theories underlying buying decision processes with an emphasis on the marketing management implications of buyer behavior on executive action. Prerequisite: MK 301 and 302. (TSU MK 334-UTN-MK 4210)

MK 410 Industrial Marketing Management (3) Analysis, from management perspective, of internal and external environments affecting the industrial marketing manager's decision relative to characteristics of industrial marketing, research, distribution, promotion, and general marketing problems and policies. Prerequisite: MK 301 and 302. (TSU NONE-UTN-NONE)

MK 415 Advertising Fundamentals (3) A study of the role of advertising in the economy and the use of advertising in marketing management decision making. Discusses mass communications theories and concepts. Advertising and its relationship to the firm's marketing program. Prerequisite: MK 301. (TSU MK 431-UTN-MK 4150)

MK 420 Purchasing (3) A study of the policies for effective and efficient procurement of goods and services for today's industry. Case study applications are used to deal with the various parts of the procurement process including the measurement and evaluation of purchasing performance. Prerequisite: MK 301. (TSU NONE-UTN-NONE)

MK 425 Retailing Management (3) Structure and environment of retailing and its relationship to other parts of the economy. Analysis of retailing marketing and financial strategy, retail store operation, merchandising decision, advertising and sales promotion activities and accounting controls. Prerequisite: MK 301. (TSU MK 3289-UTN-MK 4310/420)

MK 430 Applied Marketing Research (3) Quantitative concepts, behavior concepts, and marketing research methodology in study of consumer purchasing, sales forecasting, and other areas of marketing management. Application of research methodology to help solve marketing management problems. Prerequisite: MK 301 and 302 and STAT. (TSU MK 451-UTN-MK 4510)

MK 435 Distribution Channels, Structure, and Management (3) Distribution channel's functions, structures, and processes; the channel as an economic and behavioral system; relationship between channel members; vertical marketing systems; the evaluation of channel performance and future trends. Prerequisite: MK 301. (TSU MK 444-UTN-MK 3210/3220)

MK 440 Environmental Issues in Marketing (3) The changing nature of marketing environment, and impact on marketing strategy and decision making. Marketing's role in society, social marketing, societal interfaces, and the ethical and social responsibility of marketing. Prerequisite: MK 301, 302. (TSU NONE-UTN-NONE)

MK 445 Credit and Collections (See Finance 336) (3) Principles and practices of credit and collection management, consumer credit, business credit, credit investigation. Prerequisite: Fin 330. (TSU NONE-UTN-FI 4210)

MK 450 Marketing in Nonbusiness Organizations (3) Analysis and application of marketing concepts to nonbusiness organizations. Consumer behavior, market segmentation, product differentiation, promotion mix, channels of distribution and related concepts are analyzed in terms of both private and public nonbusiness organizations. Prerequisite: MK 301. (TSU NONE-UTN-NONE)

MK 455 Marketing Strategy (3) Design, implementation, and evaluation of marketing strategy; pragmatic orientation to application of advanced analytical concepts and skills within marketing environment. Emphasis on integration of knowledge from the component areas of marketing into cohesive, well-organized marketing program. Case studies and/or computer games will be used. Prerequisite: 9 hours of marketing including MK 405 and 430 or permission of instructor. Should be taken as close to graduation as possible. (TSU NONE-UTN-MK 4710)

MK 460 Introduction to Transportation (3) Economic, social, and political aspects on national transportation system; economic characteristics of modes of transport; regulatory problems. (TSU MK 341-UTN-TRANS 3110)

MK 465 Business Logistics (3) Introduction to management of physical distribution and supply systems; consideration of design concepts; cost determinants, firm and environmental constraints. A critical examination of the managerial aspects of the logistics function. Prerequisite: MK 302, QM 202. (TSU NONE-UTN-NONE)

MK 470 Traffic Management (3) Concepts and problems of freight traffic management ratemaking theories, rate and classification systems. Prerequisite: MK 460. (TSU NONE-UTN-TRANS 3120)

MK 475 Transportation Rates (3) Analysis of current railroad and motor carrier tariffs, classification systems, rate systems. Prerequisite: MK 460. (TSU NONE-UTN-NONE)

QUANTITATIVE METHODS

QM 201. Introduction to Statistical Analysis I. (3) Elementary statistical techniques with emphasis on applications to business problems. Topics covered include: descriptive statistics, probability, random variation, probability distributions, and statistical inference. Prerequisite: Math 113. (TSU—MS 311, UTN—Stat 2201).

QM 202. Introduction to Statistical Analysis II. (3) A continuation of QM 201. Topics covered include: linear regression and correlation, multiple regression, the analysis of variance, elements of time series analysis, forecasting models, and survey sampling. Prerequisite: QM 201. (TSU—None, UTN—Stat 2202).

QM 215. Basic Computer Science. (3) A study of the principles and applications of data processing in business. A survey of information system concepts, systems analysis and design, tools for analysis and design, the impact of the computer on the organization, programming languages and introduction to programming BASIC. (TSU—MS 301, UTN—NONE).

QM 300. Introduction to Quantitative Methods. (3) An introduction to quantitative methods of the management scientist with applications to economic and industrial problems. The course is designed to introduce the student to the use of mathematics, statistics, economics, and accounting as tools in managerial decision making. Prerequisite: QM 202 and Ec 212. (Same as Management 304). (TSU—None, UTN—IM 3220).

QM 301. Analysis of Time Series. (3) Statistical methods applicable to analysis of trends and time series; graphic presentation and analysis, index numbers, curve fitting, correlation, trend analysis, seasonal and cyclical variation. Prerequisite: QM 202. (TSU—None, UTN—Stat 3220).

QM 315. Computer Programming—COBOL. (3) A general overview of Data Processing. Considerations of peripheral equipment, binary number systems, core storage, and flow charting. The course is designed to develop computer programming techniques using the COBOL language to the point of practical business applications. No previous programming experience is required. (TSU—MS 302, UTN—CS 3410)

QM 316. Computer Programming—FORTRAN. (3) An introductory computer programming course designed to develop skills and techniques using the FORTRAN IV language on the IBM 1130 and 380 machines. Practical business applications including input/output, quantitative manipulation and data file management. No previous programming experience is required. (TSU—MS 303, UTN—CS 2140)

QM 401. Applied Regression Analysis. (3) Survey of simple and multiple regression techniques with special applications for students of business and economics. Topics covered include: linear regression with one independent variable, inference in regression analysis, aptness of model and remedial measures, multiple and polynomial regression. Prerequisite: QM 202. (TSU—None, UTN—Stat 4310)

REAL ESTATE AND URBAN DEVELOPMENT (RE)

RE 313. Principles of Real Estate and Urban Development. (3) Introduction to the social, economic, financial, and legal systems and processes involved in the development and use of real property. A survey of Real Estate Brokerage, Finance, Appraisal, Management, Law, Investment Principles. (TSU—BA 425, UTN—RE 3610).

RE 320. Urban Land Resource Analysis. (3) A survey of the changing patterns of urban development and processes of urban growth. An examination of the structure of the real estate market, characteristics of land resources, location analysis, and the importance of urban land economics in public and private land use decisions. (TSU-None, UTN-RE 3310).

RE 330. Real Estate Finance. (3) Institutional and governmental funds for financing real estate transactions. Legal instruments of finance, flow of mortgage funds into local markets, and financial packaging of real estate transactions. Prerequisite: RE 313. (TSU—None, UTN—RE 3640).

RE 340. Real Estate Law. (3) The legal environment of real estate. Emphasis on real property law, contract law, law of agency, brokerage, license law and mortgage law. Prerequisite: RE 313. (TSU—None, UTN—RE 3620).

RE 350. Real Estate Appraisals. (3) Economic theories of value applied to real estate; valuation methods, analysis of evidences of values; appraising residential properties. Prerequisite: RE 313. (TSU—None, UTN—RE 4110).

RE 360. Management of Real Property. (3) Management of real property to maximize income. Marketing, planning, and zoning, economic and social functions of land use patterns. Prerequisite: RE 313. (TSU—None, UTN—RE 3630).

RE 410. Urban Planning and Public Policy. (3) Processes of land ues regulations including the organization of public planning, planning methodology, zoning, subdivision regulations and other governmental impacts on real estate. Prerequisite: RE 313. (TSU—None, UTN—RE 3440).

RE 420. Development of Residential and Commercial Real Estate. (3) The process of developing single-family subdivisions, multi-family housing projects, office buildings, shopping centers, recreational facilities and industrial parks. Included are market analysis, legal constraints, site selection, financial analysis, design and construction procedures and marketing methods; case studies. Prerequisite: 9 hours of real estate or consent of instructor. Prerequisite: RE 313 and 330. (TSU—None, UTN—4130/4210).

RE 430. Income Property Appraisal. (3) Financial theories and methodologies used in estimating the value of income producing properties, i.e., apartments, office buildings, and shopping centers. Prerequisite: RE 313. (TSU—None, UTN—RE 4140/4150).

RE 440. Real Estate Investment Analysis. (3) Analysis of real estate equity, ownership including sole proprietorship, partnership, limited partnership, real estate investment trusts, sub-chapter S and public real estate securities. Computer-assisted analysis of federal income taxation on investment, development, equity yields and risks. Prerequisite: 6 hours of Finance, Economics, Accounting/consent of instructor, and 9 hours of Real Estate. (TSU-None, UTN-RE 41201.

RE 499. Independent Study in Business. (3) This course allows the outstanding student to investigate, in depth, approved business topics of the student's choice. Individual studies will be coordinated by a senior member of the departmental faculty. Prerequisite: Permission of the Department Chairperson. (TSU—None, UTN—none).

RE 500. Survey of Real Estate Principles. (3) Advanced discourse on the socio-economic and legal-political framework for the development and use of real property in the United States. An examination of the specific functions and processes of various public and private participants involved in real estate use and transactions, e.g., brokers, appraisers, developers, managers, financiers, planners and elected governmental officials.

THE SCHOOL OF EDUCATION

SCHOOL OF EDUCATION

Kenneth Frasure, Ed.D., Dean

PURPOSES OF THE SCHOOL OF EDUCATION

The basic purpose of the School of Education is to offer professional courses and experiences for prospective and in-service elementary and secondary teachers, counselors, supervisors and administrators.

In realizing this purpose, the School of Education seeks to prepare individuals to take their places as competent members of the teaching profession and to provide opportunities for advanced study for school personnel already established in the profession.

The professional teacher education programs are, for the most part, administered and supervised by the School of Education. The School of Education and the Graduate School cooperate with the graduate teacher education programs.

In addition to its basic purpose, the School of Education also seeks to prepare persons for human services careers through programs in psychology and recreation. Consequently, the objectives of the School of Education are:

1. To prepare elementary and secondary teachers, counselors, supervisors, administrators and school psychologists.
2. To provide opportunities for students to pursue research in the problems of education.
3. To assist graduates in finding teaching and other positions for which they are qualified and in advancing to better positions after they have had experience in their profession.
4. To provide students with opportunites for knowledge and understanding of the society in which they live and their relation to and responsibility in such a society.
5. To provide a sound program of guidance and to work cooperatively with the other departments and schools of the university in implementing the program.
6. To offer basic and advanced courses, laboratory and other experiences designed to give students a knowledge and understanding of the data, theories and methods of psychology.

In keeping with the basic purpose, the professional education component provided by the School of Education is designed to develop the competencies necessary for beginning teachers, which are:

1. To develop knowledge and understanding of the principles and processes of human growth, development and learning, and the practical application of the knowledge to teaching all children.
2. To develop an understanding of instructional methods, materials and media as they apply to facilitating learning in the student's field of specialization.
3. To develop skills in the wise use of materials, methods and resources in order to plan and teach effectively and to work ethically

and constructively with pupils, teachers, administrators and parents.

4. To develop an understanding of the historical, philosophical and social foundations underlying the development and practices of public education in this country.
5. To develop an understanding of the purposes, organization, administration and operation of the total educational program of the school.
6. To develop an understanding of the total instructional process through planned field-based experiences which involve direct observation and participation in teaching under supervision.
7. To develop instructional skills and strategies through a wide range of laboratory, clinical and student teaching experience.
8. To provide experiences designed to enable the student to utilize and apply psychological data and evaluation procedures in measuring the progress of students.

Organization

The School of Education is composed of five (5) departments. It is organized as follows: The Department of Educational Administration, the Department of Curriculum and Instruction, the Department of Health, Physical Education and Recreation, the Department of Psychology, and the Department of Reading and Special Education.

The School of Education has established, through cooperative agreements, student teaching centers in the School system of Metropolitan-Nashville—Davidson County. Other school systems in the State of Tennessee also assist with the student teaching program.

Public Services

Throughout the year, the School of Education receives requests for services from local, county, and state agencies. In an effort to meet these requests, the following services, are provided: (1) cooperation with the state in-service program in conducting short courses and summer work-conferences, (2) consultative services on local problems to school personnel throughout the State by university staff members, (3) development and distribution of materials to school personnel, and (4) cooperation with the State Department of Education in the administration of the State-wide Testing Program.

Office of Pre-Service Field Experiences

The School of Education also provides pre-service field experiences in order to afford opportunities for students to correlate theoretical information with real life situations through observations, one to one and small group participation and, finally, student teaching. The Office of Pre-Service Field Experiences accepts placement requests for these field-based activities from teacher education faculty and students for the purpose of making appropriate placements. Upon approval of each request, including applications for student teaching, these data are submitted to the Office of Pre-Service Education of the Metropolitan Nashville Public School System for further processing and final placement.

Curriculum Laboratory

The Curriculum Laboratory is a center for instructional materials in teacher education. It is designed primarily for students and teachers in the professional core courses in education, the specialized professional courses, student teaching and the required activities related to student teaching. The laboratory is located in Room 208 in the Education Building.

Learning Resources Reading Center

The Learning Resources Reading Center administered by the School of Education serves as a laboratory for students who wish to improve their reading skills and habits. This center also serves as a resource center for the study of the teaching of reading.

DEPARTMENT OF CURRICULUM AND INSTRUCTION

DR. PAYNE (Head)

The Department of Curriculum and Instruction is designed primarily for the education of teachers. It offers an undergraduate major in Elementary Education and a general major in Education for preparing secondary teachers of General Science or Social Studies. A minor program is also offered in Library Science.

The program of teacher education includes two broad areas of study: The General Education Program and the Professional Education Program.

The General Education Program, required of all departments offering a teacher education program, is described in the general "Academic Information" section of this catalog. The Professional Education core is presented below.

Professional Education

The basic pattern of professional education needed for teaching has certain common elements which apply to problems which all teachers face irrespective of the age level of the pupils who are under their supervision. In addition, preparation for teaching on the different educational levels and in various curriculum areas requires specialized training appropriate to the different areas.

The basic pattern of professional education, therefore, includes (1) core professional courses required of all persons in teacher education and (2) specialized professional courses appropriate to the different areas.

Core Professional Requirements

In planning the core professional program, attention was given to those areas of study which are considered essential to the development

of those understandings and competencies needed by all teachers. These areas include:

1. Orientation to the teaching profession: Historical, Philosophical, and Sociological Foundations of American Education.
2. Human Growth and Development, and the Psychology of Learning, including an understanding of how children grow physically, emotionally, and mentally, the nurture necessary for wholesome growth, and the relation between growth and acquiring of learning new behavior patterns.
3. Understanding of School Organization, Administration, and Management, and the relationship of the school to the total community.
4. Techniques of Measurement, Evaluation and Classroom Guidance.
5. Skill in Curriculum Development.

Professional Education Core Requirements

The following courses are required of all persons enrolled in the teacher education program.

EdCI 101—Orientation
EdCI 201—History & Foundation of Education
EdCI 301—School Organization, Administration, Management and Community Relations
EdCI 387—Curriculum Development
EdSE 465—Introduction to Special Education
Psy. 242—Educational Psychology, Human Development and Psychology of Learning
Psy. 312—Measurement, Evaluation and Guidance for Classroom Teachers

Specialized Professional Education Requirements

The specialized professional education requirements vary according to the area of grades in which one seeks certification.

The specialized requirements, adapted to grades 1-9 or grades 7-12, include:

1. Materials and methods of teaching appropriate to the level of certification, including reading methodology.

2. Knowledge and understanding of learning behavioral characteristics of handicapped children.

3. Supervised student teaching appropriate to an area of endorsement.

4. These specialized requirements are outlined under the areas to which they apply.

Specialized Professional Education Requirements for Elementary Education Majors

(Grades 1-9)	Credits
EdCI 472e—Student Teaching in the Elementary schools (Includes Seminar and Principles of Teaching)	9 Sem. Hrs.
EdSE 465—Introduction to Special Education	
EdCI 324—Teaching Reading in the Elementary School	3 Sem. Hrs.
EdCI 321—Teaching Arithmetic in the Elementary School	3 Sem. Hrs.
EdCI 322—Teaching Language Arts and Social Studies	3 Sem. Hrs.
Total	21 Sem. Hrs.

A minimum grade of "C" must be earned in each of the Specialized Professional courses.

Specialized Professional Education Requirements for the Secondary Level

(Grades 7-12)	Credits
EdSE 465—Introduction to Special Education	3 Sem. Hrs.
EdCI 371—Methods Course in the Special Subject Area	3 Sem. Hrs.
EdCI 472e—Student Teaching and General Methods on the Secondary School Level	9 Sem. Hrs.
EdRD 491—Reading and Study in the Secondary School	3 Sem. Hrs.

General Requirements for Student Teaching

All students desiring to enroll in Student Teaching (472e, 472h, 472k or 472s) must meet the following general requirements:

1. Must file applications for Student Teaching **ONE SEMESTER** prior to the one in which he/she wishes to enroll. They should be submitted to the Office of Pre-Service Field Experiences, Clay Hall, before the **LAST SCHOOL DAY IN OCTOBER** for Spring Semester Student Teaching; and before the **LAST SCHOOL DAY IN FEBRUARY** for Fall Semester Student Teaching.
2. Must be classified as a senior (90 or more semester hours).
3. Have a scholastic average of at least 2.25 in the teaching field courses with a minimum grade of C in all methods courses.
4. Meet all courses and classroom observation prerequisites.
5. Receive certification from health authorities that no serious physical condition detrimental to the welfare of the children exists.
6. Show evidence of emotional stability.

CURRICULUM IN ELEMENTARY EDUCATION

Elementary education is one of the curricula in the Department of Curriculum and Instruction set up by the University as its agency for the professional preparation of teachers in the field of elementary education. The Bachelor of Science degree is awarded upon the satisfactory completion of this curriculum. Those who complete this program are qualified for State teacher certification in elementary education.

General Requirements for the Bachelor's Degree in Elementary Education

All candidates for the Bachelor of Science degree must complete a minimum of 132 semester hours (with a minimum average of 2.0) which includes:

1. The General Core Including Subject Matter Concentration (73-76 semester hours)
2. The Professional and Specialized Education Core (34 semester hours)
3. The Minor Area Program (Minimum 18 semester hours)
4. Electives and/or Additional Minor Area Courses (5-8 semester hours)
5. Senior Project—Education 450 (3 semester hours)

Minor Area Program

A minimum of eighteen (18) hours of 300 and 400 level courses in one or not more than two related academic areas.

Some Suggested Minors

1. English
2. Geography
3. Social Studies
4. Industrial Arts
5. Library Service
6. Music
7. Special Education
8. Modern Foreign Language
9. Health & Physical Educ.
10. Early Childhood Education

Restricted Electives

Five (5) to eight (8) hours of course work on the 300 and 400 level must be selected. It is strongly recommended that Education 463 and Education 310 be included among the electives.

The curriculum sequence for each year level is presented. Each student is required to secure the approval of his faculty adviser in the Department of Curriculum and Instruction concerning his program of work.

CURRICULUM FOR MAJOR IN ELEMENTARY EDUCATION

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HIST 121 or 122	3	
PE or AFROTC	1	1
GEOG 171 or 172	3	
SCI 121-22	3	3
HLTH 151	2	
MATH 111		4
ED CI 101	1	
SPCH 210 or 220		3
ART 133; MUS 131		2
	16	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
ED CI 201	3	
HLTH 307e; HLTH 300	2	
PE or AFROTC	1	1
HIST 201-02	3	3
PSY 242	3	
PE 300		2
MATH 120		2
ELECT or MINOR	3	3
LIB SCI 211		2
	18	16

JUNIOR YEAR	Credit Hours Fall	Spring
MUS 301	3	
SCI 301-02	3	3
ELECT or MINORS	5	3
ED CI 387	3	
ED CI 322		3
PSY 312	3	
ART 360		3
ED CI 301		3
ENG 320; LIB SER 363		3
	17	18

SENIOR YEAR	Credit Hours Fall	Spring
ED CI 472o		
ED CI 321	3	
ED CI 324	3	
ED CI 472e	9	
ED CI 450		3
ELECT (ED CI 310; 463)	2	
Elect and/or Minor		6
HIST 341-42; GPA 320		3
ED CE 465		3
	17	15

CURRICULUM FOR A MAJOR IN EDUCATION (SOCIAL STUDIES EMPHASIS)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
PE or AFROTC	1	1
HIST 201-02	3	3
MATH 111; ED CI 201	4	3
ED CI 101	1	
ART 133; MUS 131	2	2
GEOG 171-72	3	3
	17	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
SCI 121-22	3	3
PSY 242	3	
PE or AFROTC	1	1
HLTH 151; SOC 211	2	3
PSY 201-02	3	3
ECO 211-12	3	3
	18	16

JUNIOR YEAR	Credit Hours Fall	Spring
ED CI 301, 387	3	3
PSY 312; SOC 330	3	3
HIST 301-02; 401-02	3	3
GPA 221-22	3	3
SOC 320; PSY 341	3	3
Electives 300 and 400	3	3
	18	18

SENIOR YEAR	Credit Hours Fall	Spring
Electives 300-400	9	
ED CI 450	3	
ED CI 465	3	
ED CI 371		3
ED CI 491		3
ED CI 472s		9
	15	15

Total Semester Hours: 132

CURRICULUM FOR A MAJOR IN EDUCATION (SECONDARY TEACHERS OF SCIENCE EMPHASIS)

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
PE or AFROTC	1	1
HIST 201-02	3	3
MATH 161-62	5	5
BIO 111-12	4	4
ED CI 101; MUS 131	1	2
	17	18

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
ED CI 201; PSY 242	3	3
PE or AFROTC	1	1
HLTH 151; ART 133	2	2
CHM 121-22	4	4
PHYS 211-12	4	4
	17	17

JUNIOR YEAR	Credit Hours Fall	Spring
ED CI 301, 387	3	3
PSY 312, SCI ELECT (SOC 400)	3	4
BOT 220; BIO 370	4	4
SOC SCI ELECT (300-400)	3	
SCI ELECT (300-400)		4
ED ELECT (300-400)	3	
	16	15

SENIOR YEAR	Credit Hours Fall	Spring
ED CI 450	3	
ED SE 465	3	
CHM 360	3	
ELECT (300-400)	6	
SCI ELECT (300-400)	3	
SCI ED 371		3
ED RD 491		3
ED CI 472s		9
	18	15

Total Hours: 132

LIBRARY SERVICE

The Library Service program may be elected as a minor by students taking a major in any department of the institution. The library service curriculum provides training for the following groups: (1) students who wish to prepare for library positions in elementary and secondary schools; (2) students who plan to enter a graduate library school after receiving the bachelor degree; (3) in-service teachers, administrators, and prospective teachers who desire information on library materials related to their teaching needs; (4) students who wish guidance in the use of library resources.

Group I—Requirements

Students pursuing a teacher education program on either the elementary or secondary level may elect library service as a minor so as to qualify for positions as school librarians. Library Service 361, 362, 441, 451, and 452 are required for certification as librarians, along with teacher certification. Education 463—Audio-Visual Aids in Education is recommended for students taking library service as a minor.

Group II—Requirements

Students preparing to enter graduate library school for further training should complete all courses offered in the department. Some graduate library schools require two years of college credit in foreign languages, while others may waive such requirements altogether, depending upon the kind of library work the student chooses for specialization.

Group III—Requirements

In-service teachers, administrators, and prospective teachers may enroll in library service courses even though they do not plan to complete a minor. It is recommended that they take courses dealing with materials: Library Service 361, 362, and 363.

Group IV—Requirements

Students seeking guidance in the use of library resources should elect Library Service 211 as early as possible in their first two years of academic training.

Courses For A Minor In Library Service

Name of Course	Credit Hours
Library Service 362	3
Library Service 363	3
Library Servcie 361	3
Library Servcie 441	3
Library Service 451	3
Library Service 452	3

Elective Course	Credit Hours
Library Service 211	2

CHILD DEVELOPMENT ASSOCIATE TRAINING PROGRAM

In response to the increased need of the early childhood education and child care community in Middle Tennessee for quality preparation of staff, Tennessee State University during 1977-78 developed a training program related to the national Child Development Associate (CDA) competencies. These competencies serve as a guide to curriculum development and course offerings in the TSU CDA Program.

The curriculum and courses have been carefully designed to provide a training plan which meets the unique needs of in-service personnel. Flexible scheduled and practically oriented instruction is offered while at the same time comprehensive coverage of the CDA competency areas is maintained. Individuals entering the program may proceed at their own pace in completing any of the 30 credit hours of courses available which they need.

Since the training plan is directly related to the national CDA competencies, students are prepared to apply for assessment by the national CDA Consortium and to seek award of the CDA Credential. Students, with assistance from their program advisor, determine the point during their program of training that their performance demonstrates the competency standards of the national CDA Consortium.

The national CDA competencies fall into six broad competency areas which are further defined into 13 functional areas. The functional areas provide definition of the indicators of competent performance. These

competency and functional area definitions provide a foundation for the training program as well as assessment.

CDA training is competency based and, is therefore, unlike traditional approaches to professional training. CDA trainees may earn viable college credit before, during and following their involvement in the CDA assessment process. The CDA credential is awarded based upon demonstrated ability rather than solely upon courses taken or degrees awarded. CDA training credit is also awarded based upon demonstrated ability along with completion of commonly held standards for academic credit such as instructor-student contact, knowledge of subject, and course matriculation. The TSU CDA training program brings these two aspects of professional credentialing (academic and demonstrated professional standards) into a complementary relationship, fulfilling the six national CDA training criteria.

NATIONAL Criteria:

1. Training must be organized around the CDA competencies.
2. Fifty percent (or more) of the training must consist of supervised field experience.
3. Academic and field experiences must be integrated.
4. Training must accommodate individual strengths, individual needs and learning styles.
5. Scheduling must be flexible.
6. Valid, transferable college credit must be offered for both academic and field experiences.

The following plan provides the details of how the TSU CDA training program addresses each of these six criteria. The TSU training program is designed to meet the needs of preschool, early childhood, head start, and nursery school teachers, who work with children ages 3-5 years in the Middle Tennessee Area. This approach to the total child care community allows for a comprehensive training program.

The CDA Course Curriculum is designed as a two year academic program. Students will enroll in two academic courses and two practicums on an average during the academic year (Fall and Spring semesters). All course offering will be based on individual needs assessment and can be offered during any semester on an Independent study or through client contract.

First Year of Enrollment

Curriculum and Instruction C&I 211
Curriculum and Instruction C&I 212
Curriculum and Instruction C&I 221
Curriculum and Instruction C&I 222

Second Year of Enrollment

Curriculum and Instruction C&I 231
Curriculum and Instruction C&I 232
Curriculum and Instruction C&I 224
Curriculum and Instruction C&I 225

Summer Semester or Optional for the Second Year—Regular Semesters
Curriculum and Instruction 2251
Curriculum and Instruction 2252

C&I 241-42-43. Problems in Providing Care for Young Children. (3, 3, 3) Individualized experiences for early childhood caregivers. Consent of instructor.

C&I 211. Problems in CDA Competency Area 1. (3) Individualized study for early childhood caregivers in setting up and maintaining safe and healthy learning environments for young children. Must be taken in conjunction with C&I 212, or by consent of instructor.

C&I 212. Practicum: Safe, Healthy Learning Environments. (3) Caregivers demonstrate ability to set up and maintain safe and healthy learning environments for young children. Consent of Instructor.

C&I 221. Problems in CDA Competency Area 2. (3) Individualized study for caregivers in learning to advance the physical and intellectual development of young children. Must be taken in conjunction with C&I 2222 or by consent of the instructor.

C&I 222. Practicum: Physical and Intellectual Competency. (3) Caregivers demonstrate ability to advance the physical and intellectual development of young children. Consent of Instructor.

C&I 231. Problems in CDA Competency Area 3. (3) Individualized study for caregivers building positive self-concept and individual strength in young children. Must be taken in conjunction with C&I 2232 or by consent of Instructor.

C&I 232. Self-Concept and Individual Strength. (3) Caregivers demonstrate ability to build positive self-concept and individual strength in young children. Consent of Instructor.

C&I 224. Problems in CDA Competency Area 4. (3) Individualized study for caregivers in organizing and sustaining the positive functioning of young children and adults in a group in a learning environment. Must be taken in conjunction with C&I 2242 or by consent of Instructor.

C&I 225. Practicum: Positive Functioning of Children and Adults in a Group. (3) Caregivers demonstrate ability to organize and sustain the positive functioning of young children and adults in a group in a learning environment. Consent of Instructor.

C&I 251. Problems in CDA Competency Areas 5 and 6. (3) Individualized study for caregivers in coordinating home and center and carrying out supplementary responsibilities. Must be in conjunction with C&I 2252 or by consent of instructor.

C&I 252. Practicum: Home, Center and Supplementary Responsibilities. (3) Caregivers demonstrate ability to establish positive and productive relationships with parents; encourage parents to participate in the center's activities, policies, and rules. Consent of Instructor.

C&I 331-32-33. Internships for Trianers. (3, 3, 3) Individualized internship experiences for persons interested in providing child caregiver training. Consent of Instructor.

SCHOOL OF EDUCATION
DEPARTMENT OF CURRICULUM AND INSTRUCTION

Course Offerings

CURRICULUM AND INSTRUCTION (EDCI)

EDCI 101. Orientation. (1) A course required of all freshmen registered in Elementary Education; designed to orient the student into the entire field of Elementary Education and to the life of the University.

EDCI 201. History and Foundations of Education. (3) A study of the historical, philosophical, and sociological foundations of the American public schools, with emphasis on the traditional function of the American public school as a local community institution. Combined with UTN 3010-3030.

EDCI 301. School Organization, Management and Community Relations. (3) Deals with the general organization, administration and management of public schools with special attention given to the relationship of the school to the local community. Techniques for effective use of community resources are also explored. Prerequisite: Admission to the Teacher Education Program. Field experience required. Combined with UTN 3020.

EDCI 310. Penmanship. (2) Develops skill in simple letter forms; upper lower case letters to facilitate the teaching of reading in the first elementary grades for chart making, and chalkboard work.

EDCI 321. Teaching Arithmetic in the Elementary School. (3) An analysis of current methods in teaching arithmetic through firsthand experiences, the place of number meaning, thinking and drill in effective learning. Prerequisites: Math 120, Psych. 242, and admission to the Teacher Education Program. Field experience required. Combined with UTN 3350.

EDCI 322. Methods of Materials in Language Arts and Social Studies. (3) A consideration of modern technique and trends in the teaching of language arts and social studies in the elementary school . Prerequisites: Admission to Teacher Education Program and previously or currently enrolled in Education 301 and 387. Field Study required. Combined with UTN 3270 and 3260.

EDCI 324. Teaching Reading in the Elementary School. (3) Includes methods, materials, and modern practices and trends in the teaching of reading at the elementary school level. Prerequisite: Psy. 242 and admission to the Teacher Education Program. Field study required. Combined with UTN 3280.

EDCI 387. Curriculum Development. (3) A critical study of the reorganization, construction, and administration of the school curriculum in the light of modern educational principles and objectives. Prerequisites: Education 201, Psychology 242, and admission to the Teacher Education Program. Field study required. Combined with UTN 3030.

EDCI 425. Education Workshop. (3) This course is designed to provide the student with opportunities to make an in-depth study of one area or combination of areas involving contemporary problems and issues in education.

EDCI 445. Field Study. (3) Under the guidance and supervision of trained teachers, the students are provided with information, teaching techniques and materials relative to the particular subject matter areas of interest.

EDCI 450. Senior Project. (3) Designed to give opportunity for students to work individually on any problem of their choice in the area of elementary education. If a student has completed 60 hours of 300 and 400 level courses, this may be taken without credit. (Must be taken on the Senior level.)

EDCI 463. Audio-Visual Aids in Education. (2) A survey course designed to acquaint the student with audio-visual materials of instruction. Proper classroom utilization of film strips, 16 mm motion pictures, slides, graphic materials, field trips, exhibits, and models are studies. Combined with UTN 4750.

EDCI 470. Educational Seminar. (3) A study of the foundations and history of education, curriculum development in education methods of teaching, and present trends in education. Combined with UTN 4630.

EDCI 472e. Student Teaching in the Elementary School. (9) This course consists of directed observations, participation, and teaching in the elementary grades. It provides opportunities for students to work in typical school situations under the guidance of

experienced teachers. Parallel readings and conferences for further interpreting and enriching these experiences are held regularly. This course is open only to seniors and teachers with some experience. Combined with UTN 4810.

EDCI 472s. Student Teaching in the Secondary Schools, Grades Seven Through Twelve. (9) Actual classroom experience in secondary schools under the charge of expert teachers in cooperating schools. Student teacher schedules should be arranged well in advance of the senior year and planned so as to enable the student to devote full time to student teaching during the semester in which the course is to be completed. Required for all students who are following the professional education core that leads to teaching as a career. Prerequisites: Ed. 201, Psy. 242, Ed. 301, Psy. 312, Ed. 387, and 371, the Department's specific methods course. Combined with UTN 4710.

EDCI 490. Multicultural Education. (3) This course is designed to develop awareness, understanding, and sensitivity to the needs and interests of ethnic and cultural groups. The differences and similarities that characterize individuals and groups should be cherished for their worth and cultivated for the benefits they bring all people.

CURRICULUM AND INSTRUCTION COURSES

EDCI 100. The Education Environment and Career Choice. (2) Exploration of occupations based upon analysis of self and occupational requirements; development of commitments to teaching and understanding of teaching learning problems in the classroom (Pass-Fail grades only). UTN 1000.

EDCI 210-220. Field Study in Education. (2-2) Problems of teachers in active service in the fields of methods of teaching, curriculum materials, school-community relationships and school organization. UTN 2010-20-30.

EDCI 351-352. Developmental Field Experiences for Teaching. (1-1) Field experiences in which students perform tasks related to teaching and teacher roles. May be taken separately or concurrently by consent of instructor. Must be taken before student teaching. Prerequisite: Admission to Teacher Education. UTN 3511-12-13.

EDCI 371a. The Teaching of Science Grades 7-12. (3) Purposes, techniques, materials, and evaluation; directed observation in public schools, preparation of teaching plans and materials. Prerequisite: Admission to teacher education. UTN 3654.

EDCI 320. Teaching Science in the Elementary School. (3) Methods and materials. Prerequisite: Admission to Teacher Education. UTN 3720.

EDCI 410. Philosophies of Education in Cultural Perspective. (3) Education in relation to the liberal, conservative reactionary and radical currents of thought in American culture. UTN 4110.

EDCI 426. Philosophies of Education: Introductory Studies. (3) Truth, knowledge, and valuation in relation to the work of the schools. UTN 4260.

EDCI 371b. The Teaching of Social Studies, Grades 7-12. (3)Purposes, techniques, materials and evaluation; directed observation in public schools preparation of teaching plans and materials. Prerequisites: Admission to Teacher Education. UTN 3653.

EDCI 452-53. Problems in Teaching Social Studies. (2-2) UTN 4352-62-72.

EDCI 454-55. Problems in Teaching Science. (2-2) UTN 4353-63-73.

EDCI 456-57. Problems in Teaching Language Arts. (2, 2) UTN 4354-64-74.

EDCI 458-59. Problems in Instructional Materials. (2-2) UTN 4356-66-76.

EDCI 461-462. Problems in General Curriculum. (2, 2) UTN 4355-65-75.

EDCI 431. Developing the Mathematics Laboratory. (2) Developing activity-oriented math-

ematics laboratory materials. Pedagogical strategies for increasing enthsuiasm, interest, and achievement in mathematics. UTN 4391.

EDCI 311. Classroom Behavior Management. (3) An overview of the major techniques for modifying classroom behaviors. UTN 3110.

EDCI 460. Teaching in Kindergarten: Overview. (3) Theory Models, current developments, goals, relationship to total elementary program, and historical settings.

EDCI 461. Teaching in Kindergarten: Program Development. (2) Curriculum planning and organization. Classroom management. Prerequisite: 460 or consent of instructor.

LIBRARY SERVICE (LS)

LS 211. Use of library Resources. (3) A general course on the use of library resources including the card catalog, periodical indexes, bibliographies, encyclopedias, and other reference tools. Designed primarily to aid students in developing a systematic approach to using library materials. A required course for elementary education majors, however, it may be taken by students from any department. Course does not provide credit for certification as a school librarian.

LS 361. Reference Materials. (3) Embraces a study of basic reference books and other reference materials particularly for the school library or small library. Also includes the organization and administration of reference services.

LS 362. Books and Related Materials for Young People and Adults. (3) Principles of selection, aids for selection, evaluation and use of books and related materials for young people and adults. Emphasizes reading of books and an examination of materials for curriculum needs, reading interests, and personal growth, and to the development and promotional activities aimed at stimulating use of materials by students and teachers. Combined with UTN 3520.

LS 363. Books and Related Materials for Children. (3) Principles of selection aids for selection, evaluation and use of books and related materials for children. Emphasis placed on required readings for acquainting students with children's books and writers in the field. Attention given to an examination of materials for curricular needs, reading interests, and personal growth and to the development of promotional activities aimed at stimulating use of materials by students and teachers. Combined with UTN 3510.

LS 441. Classification and Cataloging. (3) Introduction to principles underlying the classification and simplified techniques of cataloging books. The abridged Dewey Decimal Classification scheme used and printed cards stressed. Making of unit cards, filing and other essential procedures of organizing the book collection are included.

LS 451. Organizing Library Materials. (3) Emphasizes the organization, selection, acquisition, evaluation and use of non-book materials in the library program in relation to the entire school program. Included are problems involved in developing the library as a materials center that is responsible for audio-

LS 452. School Library Administration. (3) Principles, objectives and procedures involved in administering the small library. Standards and evaluation housing and equipment, personnel, financial support, budgeting, loan systems, reports and other administrative procedures included. Also includes an introduction to the development and function of libraries, library work and opportunities in librarianship.

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

DR. JONES (Head)

The Department of Educational Administration offers instruction designed to prepare individuals for the principalship, supervisory positions

and the superintendency. The programs sponsored by the department lead to a degree of Master of Arts in Education, Master of Education, or Specialist in Education. The department's courses, seminars, studies, etc., are intended for graduate students. Interested students should see the *Graduate Bulletin* for more detail.

Description of the Center:

The Center for Community Education was established in cooperation with the C. S. Mott foundation in July of 1973. The purpose of the Center is to disseminate information about community education and to assist in the development and expansion of such programs in Tennessee. The center provides consultant services, in-service training programs, and other assistance to communities throughout the State. At the University level, the center is responsible for in-service education, development of seminars and workshops, establishment of training programs in community education, research, public relations, conferences, and other activities which enhance the development of community education. In addition, undergraduate and graduate level courses in Community Education are offered through the School of Education at Tennessee State University.

Courses in Community Education

EDAD 300. Utilization of Community Resources. (3) Exploration of the multitude of existing community resources for learning and how these resources can be most effectively integrated into existing educational programs. Special emphasis on resource identification, recruiting, and screening skills, supervision, evaluation, reward systems for volunteers and training and utilizing non-professionals in a community school setting.

EDAD 401. Introduction to Community Education. (3) Basic introduction to the philosophy of community education and the community school concept with special emphasis on the historical and legal basis for community education, interagency relationships, facilities, community organization, and financing.

EDAD 402. Problems and Issues in Community Education. (3) Utilization of a multidisciplinary approach to the analysis of contemporary issues related to the community school. Special emphasis will be given to reviewing recent literature and research in the field. Course format will be influenced by emerging developments in community education, i.e., legislation, evaluation, goal setting, etc. Prereq: 4010 or consent of instructor.

DEPARTMENT OF READING AND SPECIAL EDUCATION

DR. RUBY MARTIN (Head)

The Department of Reading and Special Education offers undergraduate and graduate instruction in the areas of Reading Education and Special Education. Cerfification and Master's degree programs exist in both areas. Further details of the latter programs are described in the *Graduate Bulletin*.

Reading Minors

A program leading toward a minor in Reading is offered at the undergraduate level. The Reading minor is available to students pursuing a major in any area of teacher certification.

The purposes of this program are to provide a high quality program of concentration in the field of reading in accordance with the standards of the certifying agency and to fulfill the promise of a professional preparation for competent reading teachers.

Curriculum for Reading Minor

Required Courses: 18 credit hours minimum

EDRD 324—Teaching Reading in the Elementary School	(3)
OR	
EDRD 491—Reading and Study in the Secondary School	(3)
EDRD 474—Diagnosis of Reading Disabilities	(3)
EDRD 475—Treatment of Reading Disabilities	(3)
EDRD 477—Competency in Teaching Reading	(3)

Elective Courses:

EDRD 430—Teaching Reading to the Linguistically Different Learner	(3)
EDRD 476—Teaching Reading in the Intermediate Grades	(3)
EDRD 478—Seminar in Reading	(3)
EDRD 479—Teaching Phonics and Structural Analysis in the Elementary School	(3)

Developmental Reading Program

All students are encouraged to take advantage of the developmental reading program. All entering freshmen are required to enroll in a reading course if their placement tests scores fall below a minimum level of proficiency. (See section below on University Requirement.) Students on academic probation and those re-enrolling who have been on academic suspension are strongly urged to take placement tests in reading. Veterans, foreign students, upperclassmen and graduate students are encouraged to utilize the services of the Reading Center. Adult students who have been away from the academic setting may also need to improve their reading skills.

The objective of the developmental reading program is to develop and to improve students' skills in concentration, memory training, test-taking, study skills, comprehension and vocabulary enrichment. Another objective is to increase the retention rate by providing a variety of opportunities for successful academic achievement for all students.

The program is housed in the Reading Center, a suite of specially equipped classrooms, diagnostic laboratories, free reading lounges, and offices. Students are invited to visit these facilities for counseling or diagnosis.

University Requirement

All entering freshmen are required to demonstrate proficiency in reading. These students must take placement tests for reading at the beginning of their first term at the University. Failing to earn a passing score on any reading subtest, students are required to enroll in a developmental reading course until the course requirement has been satisfied. The test scores will be used to identify the course in which the student is to be enrolled.

Courses

EDRD 100—Reading Competence	(3)
EDRD 102—Flexibility of Rate and Speed of Comprehension	(3)

Course Credit

Students may take the developmental reading courses either to satisfy the University requirement or as electives. Each course carries three (3) semester hours credit. These credits will be computed into the grade point average. However, these credits may not be used to meet degree requirements.

Tutorial Assistance

Individualized tutorial assistance is available to all students. It is conducted in a reading laboratory equipped with study carrels designed for independent or individualized practice. An instructor prescribes a personalized skill development program for each student. Most students participate on a voluntary basis in a program planned around class or work schedules.

Students who have failed to meet the course requirement and have received an incomplete grade in a developmental reading course are required to attend tutoring sessions for one semester in order to complete their course requirement and to receive a passing grade.

Program for a Minor in Special Education

Undergraduate Minor Requirements

The program in special education may be selected as a minor by students taking a major in any area with teacher certification. Students

who pursue the program in special education must also meet all of the requirements for the initial certification at either the elementary or secondary level.

The program as outlined below qualifies the student for a state endorsement as a teacher in special education (non-categorical).

Specialized Courses

*EdSE 324—Teaching Reading in the Elementary School	(3)
*EdSE 321—Teaching Arithmetic in the Elementary School	(3)
EdSE 462—Educational Assessment of Exceptional Children	(3)
**EdSE 465—Introduction to Special Education	(3)
EdSE 466—Characteristics and Needs of Exceptional Children: Part I	(3)
EdSE 467—Characteristics and Needs of Exceptional Children: Part II	(3)
468—Methods and Materials in Special Education: Part I	(3)
471—Methods and Materials in Special Education: Part II	(3)
EdSE 473—Practicum in Special Education	(3)
	Total 27 hrs

A minor, without certification in special education, may be completed by taking 18 semester hours of special education courses.

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*These courses are also required for elementary education certification.

**This course is required of all persons enrolled in the teacher education program.

SCHOOL OF EDUCATION
DEPARTMENT OF READING AND SPECIAL EDUCATION
COURSE OFFERINGS

READING (EDRD)

EDRD100. Reading Competence. (3) This course is designed as an experience in reception and processing of ideas for improvement of learning in the various disciplines. Efficiency in the use of study skills, reading in the content areas, and flexibility in reading rate will be stressed.
NOTE: Based on test scores and on recommendation of advisor or department head, this course may be a prerequisite to minoring in reading.

EDRD 102. Flexibility of Rate and Speed of Comprehension. (3) This course is designed to provide experiences to help the student increase his capacity to adjust his study skills and reading flexibility.

EDRD 324. Teaching Reading in the Elementary School. (3) Includes methods, materials and modern practices and trends in the teaching of reading at the elementary school level. Required only for students pursuing teacher certification in gades K-9 or K-12.

EDRD 430. Teaching Reading to the Linguistically Different Learner. (3) Language characteristics and the special reading problems attendant with the linguistically different learner (formerly UTN 4302).

EDRD 474. Diagnosis of Reading Disabilities. (3) This course investigates diagnostic techniques for use by the classroom teacher as a basis upon which to build a child's program of reading instruction. Both lecture and laboratory experiences are provided. Combined with UTN 4280. Prerequisite: EDRD 324 or 491.

EDRD 475. Treatment of Reading Disabilities. (3) This course investigates recommended teaching strategies for use with problem readers. The students will also investigate and become familiar with a multitude of materials for teaching reading. Both, lecture and laboratory experiences are provided. Prerequisite: EDRD 474.

EDRD 476. Teaching Reading in the Intermediate Grades. (3) This course is designed to provide the learner with information and teaching procedures that are particularly important at various stages in the middle school reading programs.

EDRD 477. Competency in Teaching Reading. (3) This course is designed to be an extension of Reading 324 and a refining of techniques for diagnoising and teaching reading. It will involve both practicum or hands-on work with children as well as weekly seminars. Micro teaching and the video tape recorder will be utilized. Prerequisite: EDRD 475.

EDRD 478. Seminar in Reading. (3) Major research in the field will be read, analyzed and discussed by members of the seminar. Members will write critical reviews of the research. Prerequisite: Permission of instructor.

EDRD 479. Teaching Phonics and Structural Analysis in the Elementary School. (3) Study of the content and various phases of phonics and structural analysis in their relation to a modern program of eduation and the place of word analysis in the curriculum.

EDRD 491. Reading and Study in Secondary School: Grades 7-12. (3) Emphasis is placed upon teaching vocabulary, comprehension, and study skills, in the content fields. Required only for students pursuing teacher certification in grades 7-12 or K-12.

Special Education (EDSE)

205. Exceptional Parenting. (2) UTN 2050.

230. Manual Communication. (3) UTN 2300.

334. Humanistic Teaching of Exceptional Children. (3) Developing insights into causes of children's problems; using communication skills to solve conflict situations; employing democratic methods to manage children. UTN 3334.

400. Academic and Behavioral Assessment Procedures. (2) Methods for determining and quantifying specific skills and skill deficiencies in pre-academic, and social areas. UTN 4510.

401. Assessing and Programming the Pre-Academic Student. (2) Using a precision teaching model, students develop educational programs for pre-academic students. Introduces intervention and remedial strategies for family, community and educational settings in areas of language, self-help, and personal-social development. UTN 4520.

402. Assessing and Programming the Academic Student. (2) Using a prescriptive teaching model, students develop educational programs with short term and long term goals. Teaching sequences and instructional materals are matched to the child's learning style in areas of reading, writing, arithmetic, language, and social development. UTN 4530.

406. Nature of Emotional Disturbance in Childhood. (3) Forms, degrees of severity, possible causes and groups of causes; relationships among personality, developmental factors, behavior problems may be considered. UTN 4610.

407. Education of the Emotionally Disturbed Child. (3) UTN 4630-40-50.

420. Introduction to the Education and Psychology of the Deaf. (3) UTN 4250.

430. Communication Process for the Hearing Impaired. (3) The various communicative skills required by the hearing impaired person; speech and language development; auditory training; speech-reading; manual language and its relation to other forms of communication. Observations and practicum. (Student must acquire a degree of proficiency in the use of manual language). UTN 230.

435, 436, 437. Problems in the Education of Exceptional Children. (3,3,3).

462. Education Assessment of Exceptional Children. (3) The emphasis of the course is placed on the administration and interpretation of various educational assessment instruments which are geared specifically for exceptional children. In addition, test results will be utilized to develop and write IEP's, diagnostic prescriptive teaching strategies and behavior management techniques. Observation and practical experience is an integral part of this course. (Prerequisites 465 and 466).

465. Introduction To Special Education. (3) Designed to acquaint the student with the general field of special education—its purpose and scope. The course is a prerequisite of all courses either graduate or undergraduate. Offered each semester (Combined with UTN 3333).

466. Characteristics and Needs of Exceptional Children: Part I. (3) This survey course is designed to provide the student with an overview of: (1) general types of learning disabilities of children with normal intellectual potential and mentally retarded children with low intellectual potential and gifted children with superior intellectual potential as well as overview of visually handicapped and behavior disordered children, and (2) diagnosis and educational prescriptive remediations. (Prerequisite EdSE 465). (UTN 4605)

467. Characteristics and Needs of the Exceptional Child and the Gifted: Part II. (3) Characteristics of moderately, severely, and profoundly disabled, and/or multiply handicapped individuals from ages three to twenty-one are included in this course. Discussion of needs includes functional living skills (dressing, feeding, toileting, mobility, communication), as well as utilization of specialty personnel. (Prerequisite 465).

468. Methods and Materials in Special Education: Part I. (3) This course provides the student with expertise in developing individual educational programs (IEP's) for the mildly handicapped and gifted individual. Focus is upon academic remediation, social/personal skills, or vocatinal preparation for the mildly handicapped, or alternative approaches including various forms of enrichment for the gifted. (Prerequisites 462, 465, 466).

469. Vocational Guidance and Occupational Placement for the Mentally Retarded. (2) This course is designed to promote occupational competency for the metnally retarded secondary pupil through efficient vocational guidance. Prerequisite: Ed. 465. Combined with UTN 3400.

471. Methods and Materials in Special Education: Part II. (3) This course provides the student with the expertise in developing functional and daily living skills for profoundly to moderately handicapped. Focus is upon reaching the highest potential possible for each individual including stimulation-devleopment-integration of sensori-motor, perceptual, communicative skills, and self-help abilities. (Prerequisites 462, 465, 467).

473. Practicum In Special Education. (3) A practicum in actual classroom situations, guiding the learning experiences of exceptional children. Frequent conferences and reference readings will aid in the interpretation and solution of existing problems, as well as improving teacher-learning situations. Students must have completed the sequence of courses listed in the specialized area. Prerequisites: Ed. 465, 467, 471, and Student Teaching 472. Combined with UTN 4922 and 4940.

DEPARTMENT OF HEALTH, PHYSICAL EDUCATION and RECREATION

DR. LEWIS (Head)

The curricula in the Department of Health, Physical Education and Recreation are designed to serve all students in the University by contributing to their health, organic vigor, and good mental and physical habits. The Department aims: (1) to provide incentives for students to engage in some physical activities as a balance to the demands of college life; (2) to provide opportunities for students to develop a responable degree of skills in a variety of leisure-time activities, both for immediate and later use; (3) to offer opportunities in intramural activities and in intercollegiate athletics; (4) to prepare prospective teachers in the field of health education, physical education, athletic coaching, and (5) to provide workers and supervisors in the important area of recreation. Recreation is not within the teacher certification pattern, though requirements are such that individuals pursuing this course of study develop the ability to teach many activities.

Achievement in all courses above the general education and service course level, including certification courses in the education and psychology sequence, must be at the "C" average level or above. It is stipulated further, that all students must have passed the physical fitness tests prior to enrollment in fundamentals and techniques courses. (Part of HPER 101).

In addition to the above items, all University regulations apply as they concern requirements, teacher education admission and retention and requirements of non-teacher preparation courses of study.

In addition to the basic majors offered, the Department provides for stem concentration depending on the interests and desire of the student. One may elect to pursue a major in either elementary or secondary physical education. A student may also elect to develop a concentration in rhythms, within the concept of a major in physical education. In every instance, a student may select from a wide range of courses not specifically required, but which satisfy the student's interests.

The Department has an important service course function for the general student population. These courses must be taken in the first four semesters.

SERVICE COURSES (1 semester hour each).

NOTE: The "f" and/or "s" following a course indicates that it will normally be scheduled in the fall, spring or both.

PE 11	Team Games and Conditioning (required)	f-s
PE 12a	Introduction to swimming (majors only)	f-s
PE 12b	Elementary Swimming (required of non-majors)	f-s

Select two from the following:

PE 15	Modern Dance	f-s
PE 16	Badminton	f-s
PE 17	Volleyball	f-s
PE 18	Soccer	f-s
PE 19	Handball	s
PE 20	Golf	f
PE 21	Bowling	s
PE 22	Shuffleboard	s
PE 23	Speedball	f
PE 24	Basketball	s
PE 25	Folk and Square Dance	f
PE 26	Softball	f
PE 27	Tennis	f
PE 28	Social Dance	s
PE 29	Touch Football	f
PE 30	Weight Training	s
PE 31	Racquet Ball	s
PE 33	Wrestling	s
PE 34	Archery	f-s
PE 36	Stunts and Tumbling	s
PE 43	Track and Field	f
PE 44	Karate	f

The following courses are for those whom the campus medical staff adjudge to be suffering such physical impairment as to require limited (or adapted) activities the energy cost of which is not heavy; PE 91, 92, 93, 94 Adapted Physical Education. f-s

A core of general education is required to all majors in the Department. The core requirements are to be taken within the first two years of enrollment, as they provide a foundation for the more advanced concepts to be encountered.

GENERAL EDUCATION CORE

First Year	Hour
Art 133—Art Appreciation	2
Eng 101-102—Freshman English	6
Hea 151—Personal Hygiene	2
HPE 101—Orientation, HPE	2
Hist 201-202—American History	6
Math 111—Introduction to College Math	4
Music 131—Music Appreciation	2
Natural Science 121-122—Natural Science	6
PE 11-12a—Team Games & Conditioning; Introduction to Swimming	2

Second Year	Hour
Eng 211-212 World Literature	6
GPA 221—American Government	3
Nutr 312—Nutrition for Teachers	3
PE 36—Stunts and Tumbling	1
Choice of one other two digit PE course	1

HEALTH INSTRUCTION

Persons who plan to teach as health specialists in the schools will be required to complete the same general education core as is required of other teacher education students. Health majors are responsible for the following semester hours:

	Hour
HPE 101 Introduction to Health and Physical Education	2
HPE 304 Elements of Safety	2
HPE 403 Physical Education for the Atypical	2
HPE 402 Organization and Administration of HPE and Intramural Programs	2
HPE 450 Senior Project Writing	2
PE 312-313-314 Anatomy, Kinesiology and Physiology of Exercise (To be taken without a break)	2-2-2
PE 331 Measurement and Evaluation in Health and Physical Education	3
Hea 300 The School Health Program	2
Hea 303 Environmental Sanitation	2
Hea 306 First Aid and Care of Injuries	2
Hea 305 Family Health	2
Hea 307E or S Health Instruction for the Elementary or Secondary School	2-2
Hea 371H Methods and Materials of Health Education	3

In addition to the above courses, plus the general education and the teacher education core, health instruction majors must take the following courses:

If the student intends to go into Physical Therapy, Physics 191-192 are required by accredited Physical Therapy schools, and should be elected.

HCA 201	Introduction to Health Care Organization	3
Micro 250	Principles of General Bacteriology	4
Soc 320	Anthropology	3
Soc 420	Population Problems	3
Zoo 201-202	Human Anatomy and Physiology	4-4
Educ 463	Audio Visual Aids in Education	2
SW 320	Human Behavior and Social Environment	2
SW 470	Social Gerontology	3

CURRICULUM FOR A MAJOR IN HEALTH INSTRUCTION

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HIST 201-02	3	3
MATH 111; MUS 131	4	2
CHM 12-22	4	4
HPE 101; ART 133	2	2
PE 11, 12a	1	1
HLTH 151		2
	17	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
ZOOL 201-02	4	4
EDCI 201; GPA 221	3	3
PE 15-34	1	1
MICRO 250; PSY 242	3	3
HCA 201; HLTH 300	3	2
PE 312		2
	17	18

JUNIOR YEAR	Credit Hours Fall	Spring
ED CI 301; PSY 312	3	3
PE 331; HLTH 307s	3	2
HLTH 303; PE 314	2	2
PE 313; HPE 304	2	2
HLTH 305; ED 387	2	3
HLTH 306; MICRO 410	2	3
NUTR 312; SOC 320	2	3
	16	18

SENIOR YEAR	Credit Hours Fall	Spring
SOC 420; HLTH 472h	3	9
SW 470; ED 472o	3	
HPE 402; HLTH 371h	2	3
HPE 450; ED RO 491	3	3
ED CI 473	2	
ED SE 465	3	
	15	15

Total Hours: 133

PHYSICAL EDUCATION

Courses numbered in the 100's and 200's include theoretical and practical work and are designed for majors and minors in health and physical education. All majors in health and physical education must select skills courses in the following sequential order: two digit, fundamentals and techniques, coaching and officiating. All HPER majors will be evaluated separately in both two digit and three digit courses. Advancement to the Upper Division of this Department is contingent upon the results of these examinations in each two and three digit course.

Individual and Dual Sports—Fundamentals and Techniques

	Hour
PE 202 Theory of Aquatics	1
PE 203 Badminton	1
PE 205 Tennis	1
PE 206 Track and Field	1
PE 207 Golf	1
PE 208 Wrestling	1
PE 210 Bowling	1
PE 211 Archery	1

Team Sports—Fundamentals and Techniques

PE 201 Football	1
PE 204 Basketball	1
PE 209 Volleyball	1
PE 212 Softball	1
PE 213 Soccer	1
PE 214 Handball	1

Rhythmics

This important area is planned to serve several populations within the teacher education concept. It is possible to establish concentration in dance, within the physical education majors, on either the elementary or secondary level. The rhythmic section provides for requirements as well as electives for physical education, health and physical education or recreation majors.

PE 222A Survey of Dance Forms: Folk and Square Dance	1
PE 222B Survey of Dance Forms: Modern Dance	1
PE 222C Survey of Dance Forms: Jazz and Social Dance	1
PE 222D Survey of Dance Forms: Tap Dance	1
PE 227 Fundamental Rhythms and Music for Dance	2
PE 323 Modern Dance, Techniques and Composition	2
PE 324 Tap Dance: Techniques and Choreography	2
PE 325 Square Dance Calling and Modern Square Dance	2
PE 326 Rhythmic Performance Groups	2
PE 372D Methods of Teaching for Dance	2

One who majors in physical education, on either the elementary or secondary level or the combination program of HPE (K-12) is required to complete the following semester hours.

HPE 101 Introduction to Health and Physical Education	2
HPE 304 Elements of Safety	2
HPE 402 Organization and Administration of Health Physical Education and Intramural Programs	2

HPE 450 Senior Project Writing	2
Hea 300 The School Health Program	2
Hea 306 First Aid and Care of Injuries	2
PE Fundamentals and Techniques	5
PE 312-313-314 Anatomy, Kinesiology and Physiology of Exercise (courses to be taken without a break).	2-2-2
PE 334 History and Philosophy of Physical Education	3
PE 335 Principles of Perceptual Motor Development	2
PE 371E or S Materials and Methods in Physical Education	2
PE 315 Measurement and Evaluation in Health and Physical Education	3
Soc 375 Sociology of Sports	

In addition to the list above, requirements for either elementary or secondary physical education are as follows:

Elementary Physical Education

PE 300 Play and Leadup Games	2
PE 302 Movement Exploration	2
PE 434 Planning Special Events and Demonstrations Rhythms	2
Rhythms	5

Secondary Physical Education (At least two courses)

PE 420 Coaching of Football	2
PE 421 Coach of Basketball	2
PE 422 Coaching of Baseball	2
PE 423 Coaching of Track and Field	2
PE 424 Coaching of Volleyball	2
PE 425 Coaching of Gymnastics	2
PE 426 Coaching of Aquatics	2
PE Rhythms	4

Requirements for physical education majors beyond those listed above, in the general education core and the teacher education core are.

Zoo 201 Human Anatomy	4
Zoo 202 Human Physiology	4

Health and Physical Education is the older, traditional degree offering. It contains elements of the Health course of study in combination with certain elements of both Elementary and Secondary Physical Education. Both elementary and secondary methods will be taken, and the student does his pre-service on the secondary level.

CURRICULUM FOR A MAJOR IN HEALTH AND PHYSICAL EDUCATION WITH CERTIFICATION K-12

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HIST 201-02	3	3
MATH 111; HLTH 151	4	2
ART 133; MUS 131	2	2
HPE 101; GPA 221	2	3
PE 11, 12	1	1
PE 36, 15-43	1	1
PE 202-14		1
	16	16

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
ED CI 201; PSY 242	3	3
ZOOL 201-02	4	4
HLTH 300, 306	2	2
HLTH 305; PE 222a	2	2
HPE 304; PE 301	2	2
PE 227, 302	2	2
PE 202-14	1	
	19	18

JUNIOR YEAR	Credit Hours Fall	Spring
PE 312; HLTH 303	2	2
PE 427, 300	2	2
PE 315, 335	2	2
PSY 312; PE 313	3	2
HLTH 307s; PE 331	2	3
PE 15-43; ED CI 301	1	3
PE 334; ED CI 387	3	3
PE 202-14		1
	15	18

SENIOR YEAR	Credit Hours Fall	Spring
HPE 402; PE 472	2	9
HPE 450; ED 472o	2	
ED SE 465; PE 371e	3	3
PE 314, 371s	2	3
HPE 403; ED RO 491	2	3
PE 428	2	
	13	18
Total Hours:	133	

Elementary Physical Education is organized to provide development for those who elect to teach on the elementary level. All of the requirements are compatable with those of other physical education courses of study. A study will do the pre-service field experience on the elementary school level.

CURRICULUM FOR A MAJOR IN ELEMENTARY PHYSICAL EDUCATION WITH CERTIFICATION K-7

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HPE 101; ART 133	2	2
MATH 111; HLTH 151	4	2
HIST 201-02	3	3
ZOOL 201-02	4	4
PE 11, 12	1	1
MUS 131		2
	17	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
GPA 221; PSY 242	3	3
ED CI 201; PE 300	3	2
HLTH 306, 300	2	2
PE 227, 222a	2	2
PE 302, 301	2	2
PE 36, 202-14	1	1
PE 202, 203-214	1	1
PE 15-43		1
	17	17

JUNIOR YEAR	Credit Hours Fall	Spring
PE 331, 313	3	2
PE 312, 315	2	2
PE 335, 434	2	2
REC 302; NUTR 312	2	3
PE 334; ED CI 387	3	3
ED CI 301; PE 203-14	3	1
PE 203-14; PSY 312	1	2
PE 203-14	1	1
PE 203-214	1	
	18	16

SENIOR YEAR	Credit Hours Fall	Spring
HPE 403; ED RO 491	2	3
HPE 450; PE 371e	2	3
HPE 402; PE 472e	2	9
ED SE 465	3	
PE 314	2	
Electives (300-400)	5	
	16	15
Total Hours:	133	

Secondary Physical Education provides direction for those students who are primarily interested in teaching and coaching on the secondary level. A student will perform the pre-service field experience on the high school level.

CURRICULUM FOR A MAJOR IN SECONDARY PHYSICAL EDUCATION WITH CERTIFICATION 7-12

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HIST 201-02	3	3
MATH 111; HLTH 151	4	2
ART 133; MUS 131	2	2
HPE 101; POS 221	2	3
PE 11, 12	1	1
PE 15-43	1	1
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211-12	3	3
ED CI 201; PSY 242	3	3
ZOOL 201-02	4	4
HLTH 300, 306	2	2
HLTH 305; PE 222a	2	2
HPE 304; PE 301	2	2
PE 36, 202	1	1
PE 15-43; 203-214	1	1
	18	18

JUNIOR YEAR	Credit Hours Fall	Spring
PE 311; HLTH 303	2	2
PE 222b, 335	2	2
PE 315, 312	2	2
PSY 312; PE 331	3	3
PE 425; ED CI 301	2	3
HLTH 307s; ED CI 387	2	3
PE 15-43	1	1
PE 334, 202-14	3	1
	17	17

SENIOR YEAR	Credit Hours Fall	Spring
HPE 402; PE 472	2	9
HPE 450; ED 472o	2	
ED SE 465; PE 371s	3	3
PE 314; ED RO 491	2	3
PE 420	2	
PE 403	2	
Electives (300-400)	3	
	16	15
Total Hours:	132	

RECREATION

The curriculum in recreation has as its purpose to give the student theory and practice in the broad field of recreation and to prepare him to meet requirements for recreational employment. This major is designed to develop leaders in recreation with a sound general education and an insight into the social responsibilities of community agencies.

The curriculum is not designed to certify recreation education teachers or coordinators of public school recreation programs employed by school districts. The curriculum is designed to prepare students for a variety of positions as recreation leaders of directors in public and private agencies, including administrative positions in parks, recreation departments, positions as supervisors or community center directors as well as industrial, hospital, church, institution, settlement house and armed services recreation program workers.

The curriculum includes courses in education, psychology, natural and social sciences and courses in sports, aquatics, crafts, drama, music, social recreation, dance and camping. Practical experience is obtained through community as well as camp work experience.

All students in the recreation curriculum must meet the general education requirements of the University. To meet these requirements, students are required to complete approved sequence of courses in the areas of the humanities, mathematics, the natural sciences, and the social sciences. Curriculum requirements total 132 hours.

CURRICULUM FOR A MAJOR IN RECREATION

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3
HIST 201-02	3	3
NAT SCI 121-22	3	3
MATH 111-12	4	3
PE 11, 12	1	1
HPE 101; ART 133	2	2
REC 102		2
	16	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
HLTH 151; POS 221	2	3
ENG 211-12	3	3
PSY 201; PE 15-43	3	1
SPCH 201; PSY 202	2	2
PE 222a; ART 241	2	3
PE 205, 222b	1	2
PE 202, 312	1	2
PE 300	2	
PE 15-43	1	1
	17	18

JUNIOR YEAR	Credit Hours Fall	Spring
PE 313, 314	2	2
MUS 131; DR 301	2	2
PSY 242; REC 303	3	2
IND ARTS 353; REC 302	3	2
MUS 301; REC 353	3	2
HLTH 303, 306	2	2
PE 203-14	1	1
ART 301		3
	16	16

SENIOR YEAR	Credit Hours Fall	Spring
REC 412, 473	2	6
SOC 310; PE 481	3	2
REC 304; AV 481	2	2
HPE 450; PE 427 or 428	2	2
PE 315	2	
PE 332	2	
PE 434	2	
Electives (300-400)	2	3
	17	15

Total Hours: 132

PRE-PHYSICAL THERAPY CURRICULUM (Option)

The course of study provides the necessary college preparatory work leading to entrance into the professional preparation institutions. In addition an individual will have gained a teaching certificate in the area of Health instruction. The broad supportive background is similar to that which is required for other degrees within the department, with such additions as provide the strength in subject matter important to the physical therapy schools. One may also, if one wishes, matriculate under the Health and Physical Education course of study and elect the chemistry and physics to satisfy the physical therapy requirements. The student would become proficient in a wide range of physical skills and thus be better prepared to assist patients in their efforts to regain their physical efficiency.

Suggested additional courses in preparation for physical therapy:

Physics 211-212	4-4
Chemistry 121-122	4-4

SCHOOL OF EDUCATION
DEPARTMENT OF HEALTH, PHYSICAL EDUCATION, AND RECREATION

COURSE OFFERINGS

HEALTH AND PHYSICAL EDUCATION (HPE)

HPE 101. Health, Physical Education and Recreation Orientation. (2) Introduces freshmen to the requirements for effective college living in general and to the field of health, recreation and physical education in particular. Includes a review of objectives scientific foundations, opportunities for service and the qualifications and preparation of professional personnel in these areas.

HPE 304. Elements of Safety. (2) is concerned with the exploration of concepts that foster safe living at home, in school, on the job and at leisure.

HPE 402. Organization and Administration of Health, Physical Education and Intramural Programs. (2) A major course concerned with the philosophies, policies and procedures basic to establishing an effective program in the area, in consort with the curriculum of the school and the needs of the community. Instruction will include facilities and equipment, purposes for and the coordinating of intramurals, scheduling and content of classes, along with the same concern for varsity athletics, their control and impact. Required of Health and Physical Education and Physical Education (Elementary and Secondary).

HPE 403. Physical Education for the Atypical. (2) A study of the types of handicapping conditions requiring modified physical activity with instruction in specific activities for each type. Class work is organized on a laboratory basis to provide practical experiences in conducting the program. Prerequisite: 10 hours in health, physical education and recreation and recreation courses including HPE 304 and physical education 312-313-314. Required of all majors.

HPE 450. Senior Project Writing. (3) Designed to give students opportunities to initiate and develop projects from problems of interest to them in a junior thesis style Enrollment in course at least one semester prior to the expected semester of graduation is advised.

HEALTH (HEA)

HEA 151. Personal Hygiene. (2) Emphasis is placed on health through a consideration of various conditions which affect health. It includes a comprehensive coverage of important trends on major health areas such as those involving the psychological or adjustive processes, those of a physiological or biological nature, and it addresses itself to the issues of health services and the environment in which we live. A requirement for students fulfilling the core in general education. Combined with UTN 1110.

HEA 300. The School Health Program. (2) Designed to give a general knowledge of those procedures established to determine the health status of the child and to relate ways and means of enlisting the cooperation of pupils, teachers, parents and others in health protection. Special emphasis is placed on the functions of all school personnel. Prerequisite: 151 Combined with UTN 3510.

HEA 303. Environmental Sanitation. (2) Emphasis is placed on the expanding concept of community hygiene and sanitation in our society. It includes not only sanitation of food, water, waste disposal, material health and health in industry, but drug abuse, pollution control and the utilization of citizens for total community participation. Combined with UTN 3000.

HEA 305. Family Health. (2) Aims to acquaint the student with the important individual, family, and community factors essential to healthful living. The significance of heredity, nutrition, and housing in effective family living is emphasized. Stress is placed upon the provision and use of health services for maternal and child care and for the prevention of illness. The mental, physical, and emotional aspects of family health are also considered. Prerequisites: 6 semester hours in health education. Required of all majors in health, physical education and recreation.

HEA 306. First Aid and Care of Injuries. (2) Demonstration and practice of general first aid care for emergencies resulting from physical trauma or acute illness. Special attention also given to preventing and administering to the athletic injury with discussion, demonstration and practical laboratory experiences related to techniques used in taping and bandaging provided. A Red Cross First Aid Certificate is awarded for successful completion of the course. Prerequisites are PE 312-313-314. Combined with UTN 3210.

HEA 307E. Health Instruction for the Elementary School. (2) Fundamental principles of organizing and teaching health education at the elementary school level. Emphasis is placed on understanding the health problems and developmental levels of the elementary school child and the methods, materials, and techniques available for this purpose.

HEA 307S. Health Instruction for the Secondary School. (2) Special emphasis is placed on teaching methods, selection of course content, class organization, methods of evaluation and construction of teaching units and teaching aids on the secondary level.

HEA 371H. Methods and Materials of Health Education. (3) Attention focused on the curriculum and content of health education program with consideration given to procedures, techniques, and equipment used in teaching. Study, discussion, and experiences in planning and conducting the health lesson provided.

472H. Student Teaching in Health. (9) This course is designed to provide an opportunity for students to put to use methods, techniques and materials of instruction in Health in a class room setting. Prerequisites: specific courses as established for the program, plus at least a "C" in methods.

PHYSICAL EDUCATION (PE)

Service Courses—This section contains required and elective physical education courses for the general student body. In most cases, two activity experiences are provided. (Note: PE 12a is for HPER majors only).

PE 11. Team Games and Conditioning. (1) Required of freshmen.

PE 12a. Introduction to swimming. (1) Required of freshmen majors.

PE 12b. Elementary Swimming. (1) Required of other than HPER majors.

PE 15. Modern Dance. (1) Designed to give an introduction to modern dance techniques and elementary composition.

PE 16. Badminton. (1) An elective course designed to develop skill in badminton.

PE 17. Volleyball. (1) An elective course in which volleyball is taught.

PE 18. Soccer. (1) An elective course in which the basic elements of soccer are taught.

PE 19. Handball. (1) An elective course, in handball elements.

PE 20. Golf. (1) An elective course in which the basics of golf are taught.

PE 21. Bowling. (1) An elective course designed to teach elementary bowling.

PE 22. Shuffleboard. (1) An elective course in which shuffleboard is taught.

PE 23. Speedball. (1) An active elective in which speedball is taught.

PE 24. Basketball. (1) An elective concerned with teaching basketball skills.

PE 25. Folk and Square Dance. (1) An elective rhythm for folk and square dance.

PE 26. Softball. (1) An elective in which softball is taught and played.

PE 27. Tennis. (1) An elective course for the teaching of basic tennis.

PE 28. Social Dance. (1) An elective course exploring different types of social dances.

PE 29. Touch Football. (1) An elective presenting the modified form of football.

PE 30. Weight Training. (1) A course designed to teach the rudiments of movement using weights.

PE 31. Racquetball. (1) An activity designed to teach racquetball.

PE 33. Wrestling. (1) A course designed to teach the skills of wrestling.

PE 34. Archery. (1) An elective course in which basic skills of archery are taught.

PE 36. Stunts and Tumbling. (1) A course for the teaching of the basic tumbling skills.

PE 43. Track and Field. (1) An elective course for the teaching of the elements of selected track and field activities.

PE 44. Karate. (1) An elective, the study basic movements of Oriental Martial Art. Theory and practice of the mental and physical discipline related to the activity. To be taught as a sport, and for self defense.

Adapted Physical Education. PE 91, 92, 93, and 94. A series of courses for those students who must take, based on their current physical condition, activities of a limited nature.

MAJOR COURSES

PE 201. Fundamentals and Techniques of Football. (1) Emphasis is placed on the development of the ability to demonstrate the fundamental skills of football with proficiency as well as upon the recognition of problems related to the introduction of review of these skills in teaching situations.

PE 202. Theory of Aquatics. (1) A course in which proficiency is to be developed through the intermediate level of water skills. Emphasis is also given to the theoretical aspects, performance and teaching of aquatic activities.

PE 203. Fundamentals and Techniques of Badminton. (1) A course for majors intending to develop skills and the techniques associated with this racquet game.

PE 204. Fundamentals and Techniques of Basketball. (1) A concentration upon development of proficiency in the performance of fundamental skills in basketball with some emphasis upon recognizing problems of the teacher in introducing and/or reviewing the skills involved.

PE 205. Fundamentals and Techniques of Tennis. (1) A major course in which a racquet activity is taught, for perfection of skill and for an understanding of teaching elements.

PE 206. Fundamentals and Techniques of Track and Field. (1) A major course concerned with the student's developing performing skills and "teaching point" awareness, in the activities involved.

PE 207. Fundamentals and Techniques of Golf. (1) A major course in which students learn to perform better and to understand the theory of the activity to the extent that they may instruct more effectively. Students frequently will be required to travel to off-campus sites for laboratory experiences.

PE 208. Fundamentals and Techniques of Wrestling. (1) A major course designed to develop individual skill and understanding of the activity.

PE 209. Fundamentals and Techniques of Volleyball. (1) A required course for majors which discusses fundamentals and techniques of the activity and prepares the student in methods of organizing, strategy in competition, conditioning, and related matters for instructional purposes.

PE 210. Fundamentals and Techniques of Bowling. (1) A major course in which individual skills are developed and practiced.

PE 211. Fundamentals and Techniques of Archery. (1) A major course in which the skills of archery are sharpened and awareness of teaching concerns explored.

PE 212. Fundamentals and Techniques of Softball. (1) A major course in which softball as a set of skills is taught.

PE 213. Fundamentals and Techniques of Soccer. (1) A major course in which the skills of soccer are sharpened.

PE 214. Fundamentals and Techniques of Handball/Racquetball. (1) A course in which the skills of handball or racquetball are developed. Racquetball is a modification of the older game of handball.

PE 222A. Survey of Dance Forms: Folk and Square. (1) A study of the history, some personalities associated with (past and present) and fundamental techniques and experiences related to folk and square dance.

PE 222B. Survey of Dance Forms: Modern. (1) A study of the history some personalities associated with (past and present) and fundamental techniques and experiences related to modern dance.

PE 222C. Survey of Dance Forms: Jazz and Social Dance. (1) The study and skill development in selected social dances. The effort is to understand and develop skill in the continum of movements in the activity.

PE 222D. Survey of Dance Forms: Tap Dance. (1) Development of basic skills and understanding related historical elements associated with the tap dance.

PE 227. Fundamental Rhythms and Music for Dance. (2) Provides an understanding of music in its relationship to dance; offers experiences in creating music with rhythm instruments (standard and contrived) for dance accompaniment; surveys the area of fundamental movement patterns through participation in creative and exploratory experiences.

PE 300. Play and Lead-up Games. (2) Designed to offer the major theory and practice in exploratory experiences, lead-up activities, low organized games (for classroom, gymnasium, out-of-doors), drills, and self testing activities primarily for use in elementary physical education programs. A study of factors that make up desirable elementary physical education programs will be included. Suggestions as to how these activities may be adapted to use at secondary levels and in recreational situations will be discussed.

PE 301. Gymnastics and Apparatus Work. (2) Deals with the acquisition of skill and the development of intermediate to advanced techniques in gymnastics and apparatus work.

PE 302. Movement Exploration. (2) Offers theoretical and practical experiences in developing the problem-posing method of teaching motor activities. Includes study and analysis of the implications of the exploratory method for teachers at pre-school, primary, and intermediate levels of instruction.

PE 312. General Anatomy. (2) A basic course in gross anatomy designed to provide instruction in the study of the gross structure of the human body, and all that implies. Required of majors.

PE 313. Kinesiology. (2) A study concerned with motion of the human body, its segments and their mechanical functioning in games, sports, and other physical education activities. Required of majors. Prerequisite—PE 312.

PE 314. Physiology of Exercise. (2) A course designed to combine several science disciplines, neuromuscular activities, circulation and respiration, metabolism, environmental aspects of exercise, fatigue and training, health and physical fitness. Along with the academic information, a laboratory experience is provided.

PE 315. Teaching Individual, Dual and Team Sports. (2) A course in which the implications of the fundamental and technique experiences are focused on teaching of all activities. Methods of planning and presenting skills to be learned in the most effective manner are explored.

PE 323. Modern Dance: Techniques and Composition. (1) Intermediate advanced modern dance techniques and an introduction to the choreography process. Elective for majors and non-majors with previous experience in modern dance.

PE 324. Tap Dance: Technique and Choreography. (1) Intermediate and advanced experience for those who desire it; elective for majors and non-majors with previous experience in tap dance.

PE 325. Square Dance Calling and Modern Square Dance. (1) Techniques for calling square dance introduced with laboratory experiences for developing individual styles; participation in square dance experiences which involve the modern and up-to-date figures and innovations.

PE 326. Rhythmic Performance Groups. (1) Theory and practice related to the organization, training, and supervision of rhythmic groups (dance drill teams, majorettes, modern dance groups, tap dance groups, dance "half-timers", etc.); prerequisite: previous dance experience.

PE 331. Measurement and Evaluation in Physical Education. (3) This course acquaints the student with tests available in physical education. It emphasizes the theory, application, and administration of tests for use in evaluating the content and methods of measuring student's achievements, criteria for classification of students, and marking. Required of majors in health and physical education.

PE 332. Water Safety and Instruction. (2) Practice is provided for all coordinate styles of swimming, instruction, life saving and water safety skills, and in techniques leading to the American Red Cross Senior Life Saving and Water Safety Certificate. Prerequisite: PE 202 or equivalent.

PE 334. History and Philosophy of Physical Education. (3) A basic survey of the history of physical education. It provides orientation in the essential unity of the educational process in the field of physical education, and it provides a foundation for philosophy, principles, curriculum, organization and administration, methods and trends of modern physical education.

PE 335. Principles of Perceptual Motor Development. (2) This course is structured to identify basic principles of physical education which serve as guidelines for action by prospective teachers in planning for teaching and in deciding what and how to teach.

PE 371E. Materials and Methods in Physical Education for Elementary Schools. (3) Attention given to the nature and content of an adequate elementary physical education program with study and discussion of current principles, practices, and procedures applicable. Experience include developing teaching units and lesson plans, observation in the elementary school, and practice in conducting skill lessons.

PE 371S. Materials and Methods in Physical Education for Secondary Schools. (3) Special attention is given to content of the program, methods, procedures, techniques and devices relative to individual and dual sports, team games, rhythms, self-testing activities and related events for boys and girls on the secondary school level. Required of majors and minors in physical education.

PE 372D. Methods of Teaching for Dance. (2) Practical procedures, lead-up activities, planning and conducting the dance lesson with attention to special problems presented at various age-grade levels and under various teaching conditions (folk, square, social, modern, and tap dance).

Soc—PE 375. Sociological Implications of Sports. (3). This course deals with social mobility, environment adjustments, problems and attitudes to male and female athletes. There will be some concern with race, culture and backgrounds of various ethnic groups along with factors involved in apparent group superiority in some sport activities. An elective, for most majors, taught in the Department of Sociology.

PE 420. Coaching of Football. (2) An examination and study of rules methods of organizing practice and management of teams, team offense and defense, strategy and philosophy of coaching football. An important unit is that of officiating in the activity.

PE 421. Coaching of Basketball. (2) A course concerned with rules and regulations and theory of developing basketball teams. The skills and team strategies are examined as parts and as wholes. Some officiating concepts will naturally be discussed.

PE 422. Coaching of Baseball. (2) All elements of the game as they concern coach—the skills, personnel, theory, practice sessions, and team organization are explored. A natural concern with officiating will be given some attention, as they are important to facets of performance.

PE 423. Coaching of Track and Field. (2) A course concerned with the presentation and practice of skills associated with coaching and officiating of track and field activities.

PE 424. Coaching of Volleyball. (2) Is concerned with the theory and practice of those elements important to the coaching and officiating of volleyball as a competitive activity.

PE 425. Coaching of Gymnastics. (2) The course presents the facets of gymnastics important to coaching and officiating of that activity.

PE 426. Coaching of Aquatics. (2) The concerns for theory, events, training personnel, etc. of swimming, as they are important to coaching a team is discussed. The alignment of events in meets is also part of the concern.

PE 427. Coaching and Officiating of Individual and Dual Sports. (2) A course in which coaching/teaching in the types of sports involved are pulled together for study.

PE 428. Coaching and Officiating of Team Sports. (2) A course in which all team games, their important aspects from the coach's point of view and the developing of a team are studied.

PE 434. Planning Special Events and Demonstrations. (2) Provides prospective physical education teachers and recreation leaders with practical methods and materials for planning, directing, and producing demonstrational and extra-class events related to the daily instructional program of the school, or the daily activity program of the recreational institution. Greatest attention is directed toward projects which involve large numbers of participants and which are performed before an audience. Some attention given to "small-scale" events which are outgrowths of interest-group activity, class, or club experiences.

PE 472E. Student Teaching in Elementary Physical Education. (9) This course is designed to provide an opportunity for students to put to use methods, techniques, and materials of instructions in physical education in a classroom setting. Prerequisites—specific courses as established for the program, plus at least a "C" in methods.

PE 472S. Student Teaching in Secondary Physical Education. (9) This course is designed also to provide an opportunity for students to put to use methods, techniques, and materials of instruction on the secondary level in physical education in a class room setting. Prerequisites—specific courses as established for the program, plus at least a "C" in methods.

NOTE: Student Teaching activities are specifically pointed toward teacher certification in the related area.

H 472H Teacher Certification in Health Instruction.
PE 472E Teacher Certification in Physical Education-Elementary
PE 472S Teacher Certification in Physical Education-Secondary
Health and Physical Education majors earn teacher certification K-12.

RECREATION (REC)

REC 102. Introduction to Recreation. (2) A survey experience designed to introduce students to the field of recreation. Topics included are the history of recreation in America; definitions of basic terms; career opportunities; the impact of recreation on the economy; and principles of recreation.

REC 301. Nature Education. (2) Designed to assist students in their understanding of nature and its many aspects, including astronomy, ecology, birds, camping, cave exploration, flowers, gradening, hiking, hunting, Indian lore, mountains, nature craft, trailing, trees, and zoos. Experience is gained directly by the student in a natural setting.

REC 302. Group, Table Games and Adult Recreation Activities. (2) Aims to develop skills and provide practical experience in the supervision and participation of table games and adult leisure activities including: checkers; chess; monopoly; dominoes; scrabble; aggravation; yoot; chinese checkers, yahtzee, table tennis; shuffleboard and deck tennis.

REC 303. Camping Skills. (2) Designed to develop practical camping skills through direct experiences, including cooking skills; camp site selections; hiking skills; compass reading; rock climbing; tenting; and aquatic skills.

REC 304. Recreation for the Handicapped. (2) Deals with the modifications of recreational activities for those persons with mental, physical and multiple handicaps. Prerequisites: Recreation 302 and 303.

REC. 353. Leadership Principles. (2) Purposes to equip the student to manage and supryise recreation programs. Emphasizes program planning, current trends in principles, philosophy, skills, and techniques in leadership.

REC 412. Administration of Recreation. (2) Aims to give the student a knowledge of the organizaional, administrative, and supervisory policies and procedures utilized in the field of recreation. This knowledge is further supplemented with the skills and techniques necessary to prepare the student to meet and solve the many problems to be encountered as an administrator of recreation in parks, playgrounds, churches, camps, settlement houses, Christian associations, clubs, and community centers.

REC 473. Field Experience. (6) Supervised work experience by students in recreational agencies. The student is selected to be considered as a recreation employee subject to such requirements and responsibilities as evidenced in gainful employment in this area. Combines theory with practical experience in recreation.

REC 481. Intramural Practicum. (2) Lectures, discussions, and projects dealing with types of tournaments, schedules, policies, and officiating of intramural activities.

DEPARTMENT OF PSYCHOLOGY

DR. DANSBY (HEAD)

The courses in the Department of Psychology are designed to satisfy the needs of two groups of students: first, students who desire to major in psychology as preparation for a career in psychology or who desire intensive training in psychology as background for social work, personnel work, or medicine; and second, students who desire training in psychology as a part of the teacher education requirement.

Requirements for a Major in Psychology

The undergraduate curriculum in psychology terminates in a Bachelor of Science degree, or a Bachelor of Arts degree if the student takes the prescribed courses plus six semesters of a foreign language. All Majors are required to take: Psychology Orientation (not required for transfer students), General Psychology 201-202, and 36 additional hours in psychology courses on the 300 and 400 level. The 36 hours must include the required courses: Psychology 311, 411, 450 and 481.

In addition to the regular undergraduate course of study in psychology, the department offers a concentration in mental health. The mental health concentration is solid preparation for bachelors level entry into careers in mental health services, counseling and related work in industry and human services, as well as, for graduate study in community, clinical and social psychology. The emphasis of the program is on the scientific study of behavior and practical applications of this knowledge.

The program consists of 115 semester hours of course work in addition to a 17 semester hours core of mental health courses. The core courses are interdisciplinary and experientially oriented. Students in other de-

partments may take a minor in mental health by taking the 17 hours of core courses and the introductory psychology course, Psychology 201.

Supporting courses in other departments required for a major in psychology are: Biology 111-12, Mathematics 111-12, Sociology 211, 4 courses of Physical Education 11-43 or AFROTC 151-52 and 251-52, English 101-02 and 211-12, Art Appreciation 133, Music Appreciation 131, American History 201-02 and Political Science 221 or 222.

It is recommended that majors select electives from: Genetics, Human Physiology, Physics, Philosophy, Computer Science, History, Anthropology, Foriegn Languages, Economics and Sociology.

Advanced psychology majors shall have the opportunity to practice and acquire experience in using psychological techniques, and shall be required to complete a research project under staff supervision which is carried out in the senior project seminar. The University Testing Service and the University Counseling Center are open to advanced undergraduate and graduate psychology majors as additional sources of training and experience.

Majors who receive a grade "D" or "F" in a psychology course **must** repeat and pass the course with a grade of "C" or better.

Students interested in study in the area of psychology who desire to qualify for teacher certification may pursue one of two courses, take a double major in psychology (and some other area), or minor in psychology and become certified in another discipline.

The General Psychology courses 201-02 plus 18 additional semester hours of 300 and 400 level psychology courses are required for a minor in psychology.

Students interested in a Minor in Psychology must take the introductory psychology course, 201 plus 18 hours of 300 and/or 400 level psychology courses.

CURRICULUM FOR MAJOR IN PSYCHOLOGY*

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 101-02	3	3	ENG 211-12	3	3
MATH 111-12	4	3	BIO 121-22	4	4
HIST 201-02	3	3	PE or AFROTC	1	1
PE or AFROTC	1	1	PSY 202	3	
PSY ORIENT	2		GPH 221 or 222		3
PSY 201		3	SOC 211	3	
ART 133	2		PSY 311		3
MUS 131		2	**Advised Electives	3	3
	15	15		17	17

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
PSY 411	4		PSY 481	3	
PSY Electives	9	9	PSY 450		3
***Electives	5	9	PSY Electives	3	3
	—	—	***Electives	12	9
	18	18		—	—
				18	15

*Graduation requirements for Bachelor of Arts degree in Psychology: Complete the prescribed core, plus three years of a foriegn language.

**See recommended electives. These must be approved by major advisor before the department will accept them for credit.

***Electives must equal a minimum of 36 hours of 300 or 400 level courses. Recommended electives: Genetics, Human Psychology, Physics, Philosophy, Computer Science, Anthropology, Foreign Language (French or German), Economics and advanced courses in the area of Sociology and Economics.

CURRICULUM FOR A BACHELOR OF SCIENCE DEGREE IN PSYCHOLOGY WITH A CONCENTRATION IN MENTAL HEALTH

FRESHMAN YEAR Courses	Credit Hours Fall	Spring	SOPHOMORE YEAR Courses	Credit Hours Fall	Spring
ENG 101-02	3	3	ENG 211-12	3	3
MATH 111-12	4	3	BIO 111-12	4	4
HIST 201-02	3	3	PE or AFROTC	1	1
PE or AFROTC	1	1	PSY 202	3	
PSY 101	2		GPA 221 or 222		3
PSY 201		3	SOC 211	3	
ART 133	2		PSY 236	2	
MUS 131		2	SOC 330		3
	—	—	Advised Electives		3
	15	15		—	—
				16	17

JUNIOR YEAR Courses	Credit Hours Fall	Spring	SENIOR YEAR Courses	Credit Hours Fall	Spring
PSY 311	3		PSY 434	3	
PSY 321	3		PSY 435		3
PSY 339	3		PSY 436	3	
PSY 341		3	PSY 450		3
PSY 411		4	PSY 462	3	
PSY 424		3	PSY 481		3
PSY 433		3	Advised Electives	9	9
Advised Electives	9	3		—	—
	—	—		18	18
	18	16			

Revised 1/3/79

PSYCHOLOGY (PSY)

PSY 101. Orientation for Psychology Majors. (2) General introduction to college life with major emphasis on the board area of the field of psychology. Main focus is on acquainting the student with psychology as a profession through active participation in discussions with speakers and field experience. Required of freshman psychology majors.

PSY 201. General Psychology. (3) The basic course in introductory psychology for non-majors and majors. Designed to give the student the fundamental concepts of human behavior in the different areas of psychology. Course is prerequisite for all advanced courses in psychology; it is required for all students majoring in psychology. Same as UTN 2110 and 2120.

PSY 202. General Psychology. (3) Prerequisite Psychology 201. Required of all psychology majors. Prerequisite for majors for advanced courses in psychology. The course is designed to give students more intense study of the areas of psychology with emphasis on methodology and critical thinking. Same as UTN 2120 and 2130.

PSY 236. Introduction to the Delivery of Mental Health Services. (2) This course is designed to acquaint students with the mental health profession and its delivery of mental health services. The student will observe and interact with mental health workers in various settings, e.g. community mental health centers, crisis call centers, day care centers, etc. to obtain "first hand" knowledge of what mental health service delivery encompasses. The student will be primarily concerned with the relationship of good mental health service delivery and its benefit to the community being served. (Two hours will be used for field visits and the other hour for classroom discussion of visit.)

PSY 242. Human Development and Learning. (3) Designed to give the student an understanding of the child as a growing organism, of how behavior is acquired, an introduction to learning theory and its classroom application, and to give the student training in the application of psychological principles to various functions of the school. Required in the Professional Education Core.

PSY 310. Field Experiences in Educational Psychology. (1,1) (UTN 3410, 20, 30).

PSY 311. Elementary Statistics. (3) An introduction to statistics for the general student, with emphasis on organizing, summarizing and describing numerical data; probability; sampling distributions; correlation; regression; point estimation; interval estimation; tests of hypothesis nad distribution free methods.

PSY 312. Measurement Evaluation for the Classroom Management in Public Schools. (3) Primarily concerned with offering training in administering, scoring, processing and using the results of standardized and teacher-made tests and other measures fo progess in public schools; also training is offered in the construction of objective and subjective tests. Prerequisite Psychology 242. Required in the Professional Education Core. Attention is also given to various tests as they relate to the functions, techniques, and tools of guidance and counseling.

PSY 321. Abnormal Psychology. (3) A descriptive and theoretical survey of the major forms of psychopathology in children, adolescents and adults. The course will examine current trends and research in the field of mental health and psychopathology.

PSY 323. The Psychology of the Black Experience. (3) The Psychology of the Black Experience deals with coping strategies of Black families, (as opposed to current emphasis on pathology of Black families); Psychology of the Black female; Black male. Research of Black authors will be emphasized.

PSY 331. Principles of Human Sexuality. (3) A study of theories and current research related to psychological and physiological aspects of human sexuality, as well as the Effect of Sex-Roles on Sexual Interaction.

PSY 333. Group Dynamics and Human Relations. (3) A study of the structures and processes of human relations in both dyads and larger groups. Cohesiveness, communication and interpersonal transactions are among the topics which will be covered. The dynamics of the relationship among class members may be included as a part of the subject matter.

PSY 339. Mental Health Services Methodologies. (3) An introduction to some methods utilized in the delivery of mental health services. The course will emphasize understanding the helping relationship from the viewpoint of both the client and the professional. Students will be introduced to methods in inteviewing, observing, information gathering, and situation analyzation. One hour of field experience will be a built-in dimension of this course.

PSY 341. Social Psychology. (3) A study of interpersonal behavior including such topics as perceiving others, interpersonal attraction, prejudice, attitude change, social influence, aggression, altruistic behavior, group processes and the psychology of organizations.

PSY 351. Developmental Psychology: Child Development. (3) The growth and development of the human organism from a theoretical perspective: biological, cognitive, social and emotional development.

PSY 352. Adult Psychology. (3) A study of the developmental taks of adulthood. Emphasis will also be given to the search for meaning and the courage to create one's lifestyles.

PSY 353. Psychology of Death and Dying. (3) A study of such topics as the dying person, attitudes toward death, children and death, grief, funeral rites, euthanasia and criteria for determining death. Emphasis will be placed on individual experience.

PSY 373. Educational Psychology. (3) Increasing the effectiveness of learning (UTN 3730).

PSY 381. The Psychology of Adolescence. (3) Examination of the major theories of research on the physiological emotional, mental,and socio cultural characteristics of adolescent development. (UTN 3730)

PSY 383. Effective Parenting. (3) A synthesis of parenting skills and specific ways for teacher to communicate these to parents. UTN 3830.

PSY 411. Foundations of Psychological Investigation. (4) Introduction to methods of behavioral research commonly employed in psychology and education. Topics include methods of observing behavior, measurement, subject selection, design and interpretation of behavioral research, research ethics, and conducting and reporting research projects in the behavioral sciences.

PSY 412. Principles of Conditioning. (3 hrs. lecture, 1 hr. lab.) A study of both classical and operant conditioning including such topics as reinforcement, scheduling, acquisition of response, extinction, generalization, and discrimination, and applications to complex human learning. The laboratory includes experiments in animal and human learning.

PSY 413. Human Learning and Cognitive Processes. (4) A study of such topics as memory, problem solving, information processing, concept formation, and psycholinguistics. Lecture, Lab.

PSY 420. Perception. (4) A study of the process by which individuals acquire information about their environment. Topics include perceptual learning, sensory mechanisms and impairments, illusions, cultural and personality influences, subliminal perception and ESP. Emphasis on demonstrations to sensory phenomna with subsequent discussion. Lecture, Lab.

PSY 424. Behavior Modification. (3) Designed to give the student a firm grounding in Behavior theory, of applications and the theoretical basis for several discrete methods of behavioral management in the home, clinical settings, and the school. Ethical consideration of manipulating human behavior will be throughly explored. Contrasts with other techniques and criticism will be documented.

PSY 425. Personality Theory. (3) A study and analysis of the major theretical approaches to the personality.

PSY 430. Motivation and Emotion. (3) An examination of some of the major theories and issues in the areas of human motivation and emotion.

PSY 431. Physiological Psychology. (3 hrs. lecture, 1 hr. lab.) An introduction to the study of the relationship between bodily processes an behavior. Emphasis is placed upon the basic anatomy and physiology of sensory and motor functions, motivation, emotion, learning and behavior disorders. The laboratory focuses on individual and group experiments in these areas.

PSY 437. Fundamentals of Counseling. (3) This course is designed to provide the student with an orientation to issues, problems, and values related to the counseling process. Emphasis will be placed on the development of basic counseling skills.

PSY 450. Senior Project. (3) Required of all seniors majoring in Psychology. A course in which students plan and carry out projects in the area of psychology under the supervision of a faculty person.

PSY 451A,B, & C. Readings and Research in Psychology. (3) (3) (3) Individual study and research under faculty guidance. Prerequisite: 12 hours of upper division psychology and permission of instructor.

PSY 460A. Drugs and Behavior. (3) A study of the biomedical, psychosocial and mental health aspects of drugs that effect behavior including alcohol. Substance abuse and treatment modalities will also be emphasized.

PSY 460B,C, & D. Special Topics. (3) (3) (3) Faculty generated topics in phychology. Scope of the subject matter to be determined by instructor. Designed for upper-division students. May be taken more than once.

PSY 462. Introduction to Psychological Test and Measures. (3) Designed to give the student an understanding of the basic principles underlying psychological measurements, offers training in selection and use of psychological tests, and practice in both group and individual testing. An intensive study of individual differences, with emphasis on Intelecutal, personality and Academic Achievement testing. Prereq: Descriptive statistics.

PSY 471. Industiral and Personnel Psychology. (3) Psychology of employee selection, training, proficiency, evaluation, motivation, morale, and reactions to working conditions.

PSY 472. Fields of Applied Psychology. (3) A survey of key areas of the practical application of psychology such as consumer behavior, human engineering, personnel work, clinical treatment, counseling, education, medicine and law.

PSY 376-377. Field Experiences in Educational Psychology. (1,1) (UTN 3410. 20, 30)

PSY 414. Mental Health in the Classroom. (3) The mental hygiene of the child as affected by his/her total environment. An understanding of the nature of positive mental health. (UTN 4130).

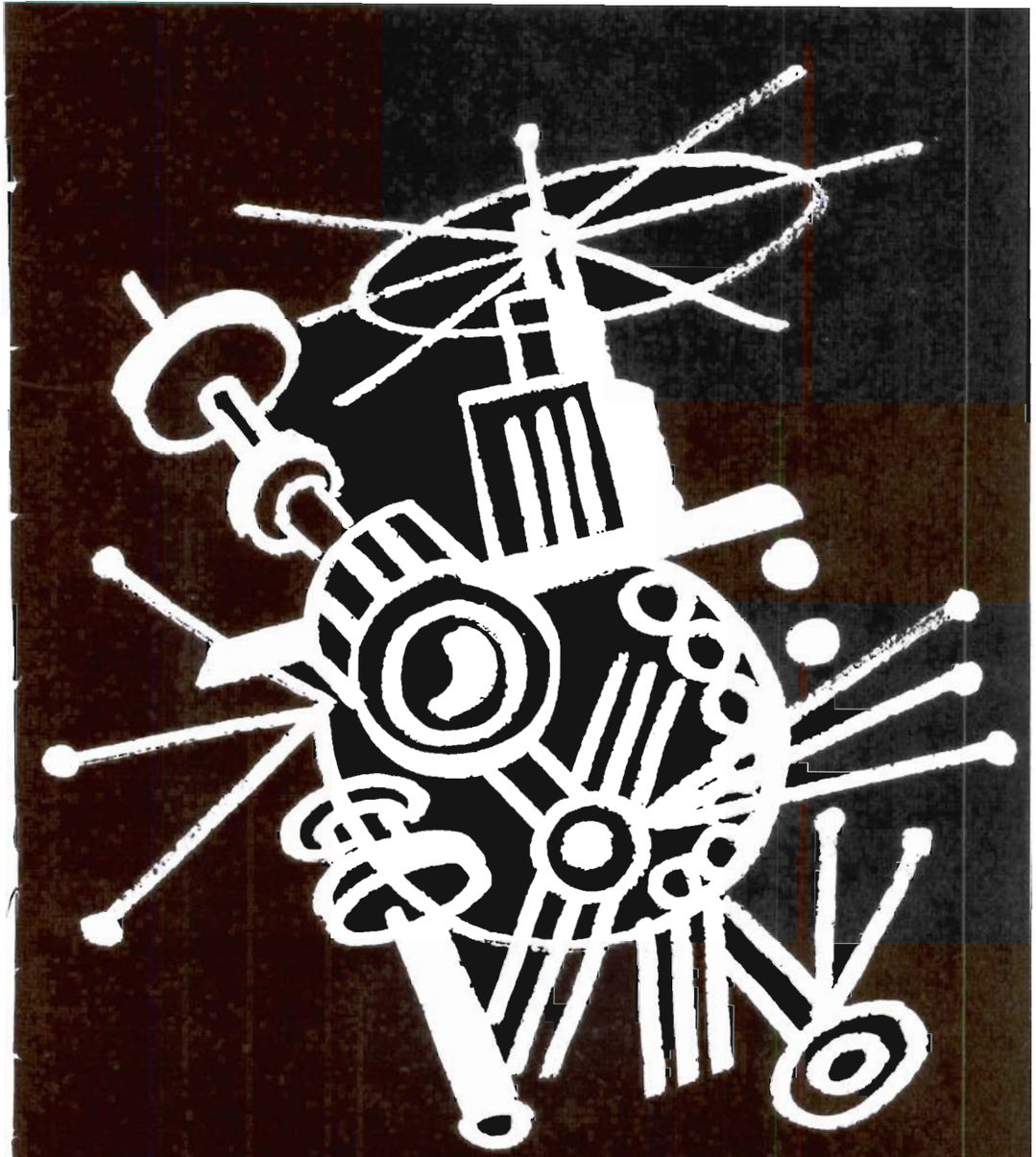
PSY 433. Community Psychology: Individual and Group Intervention. (3) The course focuses on community based individual and group intervention strategies. Major issues and intervention will be examined. Beginning skills applicable to the mental health fields will be emphasized. Suggested prerequisites: Psych. 339.

PSY 434. Community Therapy: Social Training Program Development. (3) The course is designed to develop competence in the development and implementation of social skill training programs. Suggested prerequisites: Psych. 339 and Psych. 424.

PSY 435. Administration in Human Services. (3) Interdisciplinary course between Psychology, Government and Public Affairs and Sociology. The course is designed to introduce the student to the basic managerial skills utilized in human service and the role of local, state and national governmental agencies in human services delivery. An understanding of the politics of service delivery will be emphasized. A field experience is a component of the course. Suggested Prerequistie: Psych. 339.

PSY 436. Mental Health Practicum. (3) Placement experience in a mental health setting. A minimum of 9 hours per week at the practicum site is required. Prerequisites: Psych. 339, 433, 434 and 435.

PSY 481. History and Systems of Psychology. (3) Special attention to the historical development of psychology as a science, and the fundamental concepts of various schools of psychology. The purpose of inductive and deductive research will be explored.



THE SCHOOL OF ENGINEERING AND TECHNOLOGY

SCHOOL OF ENGINEERING AND TECHNOLOGY

EDWARD I, ISIBOR, PH.D., P.E., Dean

The School of Engineering and Technology is located in the greatest area of industrial expansion in the Southeast. It is within two hundred miles of the Tennessee Valley Authority and the Atomic Energy Commission's Oak Ridge Plant; within 150 miles of the Arnold Air Development Research Center at Tullahoma, Tennessee; and the Marshall Space Center at Huntsville, Alabama; near the foundry and steel mills of Middle Tennessee and Alabama, and in the midst of the largest source of hydroelectric power in the East.

The professional School of Engineering and Technology offers Bachelor of Science degree programs in Architectural Engineering, Civil Engineering, Electrical Engineering, Industrial Technology, Mechanical Engineering, Engineering, Technical Aeronautics, and Transportation Services and Technology, and an Associate of Science degree in Fire Science.

The school's curricula in these programs are structured to graduate quality engineers capable of taking their places in the mainstream of the engineering profession. The education of our students prepares them to satisfy the manpower needs of industry and with sufficient technical competence to tackle the complex engineering challenges facing our industrialized society.

Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience and practice is applied with judgement to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind. The successful engineer must have mental ability and alertness of a high order; must develop sound judgement; must be willing to try; must recognize failures and keep on trying until he arrives at a satisfactory solution to the problem at hand. Therefore the goals of engineering education at Tennessee State University include the following:

1. familiarizing the student with the systematic engineering approach followed in problem solving
2. providing the student with a strong foundation in engineering fundamentals
3. developing professional attitudes including understanding of the engineering profession
4. developing habits of orderliness, carefulness and objectivity in the student
5. developing an understanding and a sensitivity for the social, economic and environmental implications of various engineering designs in the real world.

Technology has advanced and changed so rapidly over the past few years that the professional team carrying out the engineering function has also changed in composition of responsibility. From the last century when engineers and/or craftsmen made up the team, we now have come to many combinations involving distinct occupational groups such as craftsmen, engineers, scientists, technicians and technologists. It is also projected that between now and the end of the century, society's demands on technically trained persons will range from providing and maintaining interplanetary exploration and travel to solving many earthly problems pertaining to energy, pollution, transportation, housing, preservation of the environment, and others arising from the continuing increase in population. The demands can be met only by team efforts of both technical and nontechnical persons.

The initial stage in seeking solutions to societal problems ordinarily is a research project seeking basic new knowledge headed by a scientist or engineer. The second stage is often engineering development and design led by an engineer assisted by technologists, technicians and craftsmen. The third stage—usually production, construction and/or operations is increasingly becoming the realm of the technologist, frequently assisted by technicians and craftsmen, sometimes with an engineer as advisor or consultant. The fourth stage of day-to-day operation and maintenance is usually conducted by technicians and craftsmen with a technologist or engineer or supervisor.

The programs of study in Industrial Technology at Tennessee State Univeristy are designed to prepare industrial technologists and teachers of industrial subjects in public schools.

The study of Industrial Technology provides a greater involvement with the "HOW" rather than the "WHY" of scientific principles, theoretical concepts, devices and gadgets. The technologist is typically a practical person interested in the application of engineering principles and in organizing people for efficient industrial production, construction, operation and management.

The American society, having become highly complex and technologically oriented, can maintain its present state—while at the same time further advancements—only through a well educated citizenry. Such an effort requires teams of highly trained and skilled persons. Certainly, these teams of technically-trained workers are needed to adequately interpret, translate and communicate the language of industry to other members of the societal group.

The School of Engineering and Technology instructional programs are located in the following facilities:

1. Engineering Building—This building houses the physical testing, cement and soils, environmental, highway, electrical circuits, electronics, energy conversion, controls, digital logic, combustion engines, refrigeration and air-conditioning, hydraulics, vibrations, noise and model-making laboratories; drafting rooms, classrooms and offices for the departments of Civil, Electrical and Mechancial Engineering. The B.S. in the Engineering Program is housed in the downtown facility.

2. Industrial Arts Building—In this building are located the metals, wood technology, building construction, electronics and aeronautics laboratories; one drafting room; classrooms; two design labs and offices for the departments of Architectural Engineering and Industrial Technology.

3. Operations Building—The printing technology laboratory is located in this building.

TUTORIAL CENTER

In order to alleviate academic casualities, the School maintains a tutorial center that is designed to help students in need acquire mastery of course materials. The center is adequately staffed with faculty and selected students to provide assistance to students who are referred to the center.

Students may go to the center for assistance whenever they need help in course work at any time during the hours it is open. Students are normally referred to the center by the instructor using a referral slip. However, if a weakness is detected, the academic advisor can also advise the student to seek help that is available in the center.

The Tutorial Center is located in the Engineering Building in Room E207 and is open from 9 A.M. to 9 P.M. Monday through Friday.

PRE-ENGINEERING SUMMER INSTITUTE

The School of Engineering and Technology at Tennessee State University conducts a Pre-Engineering Summer Institute directed toward attracting promising high school students who could probably be successful in engineering careers but have deficient high school preparation in some of the required fundamental subjects.

Students selected to participate in the Institute receive 5 weeks of intensive instruction in communication skills, Algebra, Trigonometry and Physical Sciences and participate in problem sessions and field trips to engineering firms, about seven hours per day, five days per week.

At the beginning of the Institute, students are given a pre-test to determine their areas of weakness for diagnostic purposes. Near the close of the Institute, a comprehensive examination is given to determine the level of preparedness of the participants. Students scoring at a satisfactory

level are encourged to enroll in engineering with the possibility of receiving some financial assistance during the Freshman year. Some students scoring below a satisfactory level are encouraged to enroll in engineering on a conditional basis. The remaining students are encouraged to enroll in a technology program or other programs available at TSU.

SCHOLARSHIPS

The School of Engineering and Technology at Tennessee State University grants scholarship awards annually to students with outstanding achievements in high school work. Scholarships available to incoming students cover tuition costs and in many cases, boarding and lodging. The basic criterion for awarding scholarships is the genuine need for financial assistance.

In addition to engineering scholarships, students qualifying for financial aid may receive supplemental assistance in the form of federally funded grants (BEOG, SEOG), loans (NDSL), work-study, work-aid, academic work-aid awards and other scholarships.

Students pariticipating in the work-aid and work-study programs, which involves 5 to 10 hours per week of campus employment can earn between $180.00 and $360.00 per semester.

CO-OPERATIVE STUDENT PROGRAM (Co-op)

The School of Engineering and Technology at Tennessee State University provides opportunities for students to gain practical experience in industry while at the same time, earn money to finance their education. Under the "Co-op" program, the student devotes alternate semesters to study at the University and work in industry.

A "Co-op" applicant must have satisfactorily completed a minimum of 30 semester hours of course work by the time he/she is scheduled to begin the first work period. Transfer students who have completed an equivalent number of hours—including at least one semester of course work at Tennessee State University are also eligible to participate in the "Co-op" program.

Students remain eligible for the program through their junior year. Some companies require that the student maintain a G.P.A. of 2.0 or above out of 4.0 to remain eligible.

The work schedule for students participating in the "Co-op" program will vary slightly from year to year. In general terms, however, each work period will be approximately 4 months in length as follows:

FALL: Around the last week in August to the second week in December

SPRING: Around the first week in January to the first week in May

SUMMER: Around the first week in June to the second week in August

ADMISSION CRITERIA

The School of Engineering and Technology has some special requirements for admission into its programs beyond the general requirements of the University. These additional requirements are stipulated below.

In order to place sufficient emphasis on English, Mathematics, Physics, and Chemistry for normal progress in engineering education, the students' high school preparation should include:

English	4 units
Algebra	2 units
Plane and Solid Geometry	1½ units
Trigonometry	½ unit
Physics	1 unit
Chemistry	1 unit
Social Science	2 units

An examination of the applicant's high school record will be used to determine admission to the program. The minimum acceptable ACT Score for all entering students is determined from a formula that, based on high school averages, predicts success in engineering and technology. Based on this prediction formula a table has been prepared showing the range within which an acceptable ACT Score and high school average might fall.

High school students who are deficient in one or more of the preparatory subjects may be admitted conditionally but their competency must be established by their scores on the American College Tests (ACT).

SPECIFIC SCHOOL GRADUATION REQUIREMENTS

In addition to the University requirements for graduation, the following specific school graduation requirements must be met by engineering students:

1. Freshman students in the School of Engineering and Technology are required to participate in the Freshman Forum during their freshman year.

2. Engineering students will not be permitted to accumulate more than two "D" grades in all required engineering, mathematics, physics and chemistry courses.

3. All engineering students must take the EIT examination prior to graduation.

ENGINEERING CORE

The following subjects are required in all engineering fields of specialization except for the Bachelor of Science in Engineering program and the Architectural Engineering program.

MATHEMATICS AND PHYSIC SCIENCE	31 cr. hrs.
Calculus	11
Applied Mathematics or Differential Equations	3
Probability and Statistics	2
General Chemistry	4
Introduction of Material Science	3
General Physics	8
COMMUNICATIONS	16 cr. hrs.
English Composition	6
Speech	3
Technical Report Writing	3
Engineering Development	1
Engineering Graphics	3
ENGINEERING SCIENCE	19 cr. hrs
Computer Science	3
Engineering Mechanics	6
Thermodynamics	3
Electrical Circuits	3
Engineering Economics	3
Senior Seminar	1
HUMANITIES AND SOCIAL STUDIES	19 cr. hrs.
American History	6
Literature	6
Social Studies Electives	3
Humanities Electives	4
UNIVERSITY REQUIREMENTS	
AFROTC (Air Science or Military Science) or *Physical Education	4
Total	89 cr. hrs.

INDUSTRIAL TECHNOLOGY CORE

MATHEMATICS AND SCIENCE	13 cr. hrs.
Math	7
Natural Science	6
COMMUNICATIONS	9 cr. hrs.
English Composition	6
Graphics	3
HUMANITIES AND SOCIAL STUDIES	19 cr. hrs.
American History	6
Humanities Elective	4
Social Science Electives	3
Literature	6
UNIVERSITY REQUIREMENTS	4 cr. hrs.
AFROTC (Air Science or Military Science) or *Physical Education	4
Total	45 cr. hrs.

GENERAL ENGINEERING COURSES

ENGR. 100. Engineering Development. (1) An introduction to the engineering profession including: nature of engineering; the use of the slide rule; techniques in the analysis solution and presentation of engineering problems; lectures by engineers from industry; and inspection trips to local engineering projects. A minor engineering design project is required.

ENGR. 101. Engineering Computations. (2) Introduction engineering computations; presentation of data: elementary problem solving; use of a side rule and digital computers; treatment of error; empirical methods. Three hours plus open computation lab. Prerequisite: Math 1500. (Formerly UTN course Basic Engineering 1410).

ENGR. 110. Freshman Forum. (0) An overview of the University and School's student academic support facilities; academic and non-academic advisement; retention standards.

ENGR. 111. Engineering Graphics. (3) Standard engineering lettering; line and figure drawing with instruments; the correct representation of objects; models; and machine parts in orthographic isometric; and oblique projections, as well as practice in dimensioning and the reading of drawings. Six laboratory hours per week.

ENGR. 114-5. Fundamentals of Engineering Graphics. (2, 2) Graphical representation of three-dimensional shape and size; space relationships, graphical analysis of engineering data. A self-study course with tutorial assistance for those who have had high school mechanical drawing and/or related experience. Must be taken in sequence. (Formerly UTN courses Graphics 1415-25)

ENGR. 200. Circuits I. (3) Fundamental concepts of charge current; voltage and power; passive and active circuit elements; Kirchoff's Laws, Thevenin's and Norton's Theorems; transient and steady state response of RL, RC and RLC circuits; phasors and the concepts of impedance, poles and zeroes. Prerequisite: Math 261. (Formerly UTN 2010 and formerly TSU EE 211.)

ENGR. 211. Engineering Mechanics I. (3) Statics of particles; statics of rigid bodies in two dimensions; statics of rigid bodies in three dimensions; centroids and centers of gravity; analysis of structures; forces in cable, friction and moments of inertia. Prerequisite: Math 262.

ENGR. 212. Engineering Mechanics II. (3) Kinematics of particles, kinetics of particles including force, mass and acceleration; work and energy; impulse and momentum; kinematics of rigid bodies; kinetics of rigid bodies including force and acceleration; work and energy, impulse and momentum. Introduction to mechanical vibrations. Prerequisites: ENGR 211 and Math 341.

ENGR. 213. Statics. (3, 1) Forces, moments, resultants of force and moment systems; static equilibrium; two and three dimensional vector analysis; hour lecture, 1311 three hours lab per week. Coreq: Math 182. (Formerly UTN courses Basic Engineering 1310 and Engineering Mechanics 2710.)

ENGR. 214. Dynamics. (3, 1) Displacements; particle kinematics and projectile motion; kinetics of particles using Newton's Laws; frictional forces; impulse-momentum. Required of all engineering students. Three hours and one three hour lab weekly. Prerequisite: ENGR 213, Corequisite: Math 182. (Formerly UTN course Basic Engineering 1320 and Engineering Mechanics 2720).

ENGR. 215. Basic Thermodynamics. (2, 1) Work and kinetic energy; temperature and heat transfer; first laws of thermodynamics; kinetic theory of gases. Required of all engineering students. Three hours and one thee hour lab weekly. Prerequisite: ENGR 214, Correrequisite: Math 182. (Formerly UTN course Basic Engineering 1330.)

ENGR. 220. Computer Science. (2) A basic course in computer problem solving utilizing algorithms and the FORTRAN language. Included is familiarization with large-scale computer systems, descriptions of different languages, and actual usage of pre-written programs and subroutines; as well as development of new programs for their own use. Prerequisites: Math 261 and ENGR 100. Note: To be taken in conjunction with ENGR 220L.

ENGR. 220L. Computer Science Lab. (1) Practical use and development of programming skills and actual case studies. Includes statement coding, flow charting, debugging, and running of actual student programs. Note: To be taken in conjunction with ENGR. 220.

ENGR. 230. Introduction to Materials Science. (3) An introductory course on properties of materials, selection of materials, structure of crystalline and noncrystalline solids; mechanical behavior; electronic behavior, chemical behavior, stability and failure. Prerequisites: Chemistry 121, Math 262, Physics 221.

ENGR. 301. Thermodynamics I. (3) An introduction to the nature and domain of thermodynamics; the Zeroth Law; properties and states of pure substances; work and heat; the First Law applied to both open and closed systems; general observations and statements of the Second Law; The inequality of clausius and entrophy changes for closed and open systems; vapor power and refrigeration cycles. Prerequisite: Physics 221.

ENGR. 303. Applied Mathematics I. (3) Solution of ordinary differential equations by classical and Laplace Transform techniques. Applications to problems from engineering systems, including electrical circuits and mechanical vibration models. Prerequisite: Math 341.

ENGR. 304. Applied Math II. (3) Introduction to complex analysis and boundary value problems and introduction to complex analysis. Prerequisite: ENGR. 303.

ENGR. 314-5. Fluid Mechanics. (2, 2) Basic laws of fluid mechanics; effects of viscosity and compressibility; empirical analysis; Navier-Stokes equations; boundary-layer concepts; fluid measurement; turbo-machinery. Three 3-hour labs in 314. Prerequisites: ENG 214, Math 342. (Formerly UTN courses ENGR Mechanics 3110-20)

ENGR 330. Analog Computers. (3) Basic principles and techniques employed in the simulation and module analysis of physical systems and controls. Analysis of dynamic systems described by preparation and scaling; operational amplifiers, multipliers and function generators. Prerequisite: Math 462. (Formerly UTN course EE 4610)

ENGR 331. Mechanics of Materials. (3) Concepts of stress and strain; stress-strain relations and Mohr's circle; stresses and displacements in thin-walled pressure vessels; shafting determinate beams. Three hour lecture. Prerequisite: ENGR 213. (Formerly UTN course ENGR Mechanics 3310)

ENGR. 340. Numerical Methods in Engineering. (3) Numerical solutions of systems of linear and non-linear equations; numerical differentiation and integration; numerical solutions of ordinary and partial differential equations. Prerequisite: Math 462.

ENGR. 345. Statistics for Engineering. (3) Survey of statistical methods with special application for engineering students; frequency distributions, selected sampling distributions; some tests of significance, introduction to linear regression. Cannot be taken for credit by students who have credit for UTN courses Statistics 2210-20. Prerequisite: Math 341. (Formerly UTN course ENGR 3450)

ENGR. 400. Senior Seminar. (0, 0, 1) Introduction to Systems Approach and system engineering; Discussion of engineering case studies; Professionalism in engineering; Professional ethics; Professional registration; Professional development activities; Engineers in industry; Interdisciplinary design in engineering. Prerequisite: Senior standing.

ENGR. 404. Manufacturing Materials and Processes. (3) Study of the characteristics of various manufacturing materials and techniques common to industrial manufacturing processes. Three hours including bi-weekly lab. Prerequisite: ENGR 331. (Formerly UTN course ENGR 4040 and ENGR 2110)

ENGR 410. Introduction to Non-Linear Optimization. (3) This course will deal with the fundamentals, techniques and applications of non-linear programming. It will cover both one dimension and multi-dimensional search techniques and also direct and indirect gradient methods. Both unconstrained and constrained programming methods will be studied.

ENGR. 411-A, B, C, D, E, F, G, H. Special Topics in Engineering. (3) Special subjects presented to cover current problems of unique advances in the state of the art. Prerequisite: Senior standing. (Formerly UTN course ME 4910-20-30)

ENGR. 414. Engineering Design. (2) Integration of ideas, concepts and fundamentals of engineering into design, involving analysis and synthsis of technical, human and economic factors. Students work in multidisciplinary teams. Prerequisite: Within two semesters of graduation. May be repeated for credit once. (Formerly UTN course ENGR 4000)

ENGR. 415. ENERGY CONVERSION SYSTEMS. (3) Economic and technical design parameters as applied to power plants for public utilities or industrial applications. (Formerly UTN course ENGR 4150)

ENGR. 420. Engineer in Training License Review. (0) A course designed to prepare students for the EIT examination, a partial requirement for obtaining license as a professional engineer. Prerequisite: Senior standing.

ENGR. 423. Legal and Ethical Aspects of Engineering. (2) Legal principles underlying engineering work; laws of contracts, torts, agency, real property, problems of professional registrations and ethics. (Formerly UTN course ENGR 4230)

ENGR. 430. Engineering Economics. (3) Economic factors involved in the acquisition and retirement of capital goods in engineering practice including: interest and capitalization methods of depreciation; amortization, sinking funds; cost and rate determination. Prerequisites: ECON 211 and Junior standing.

ENGR. 440. Probability and Statistics. (2) Statistics and engineering; Probability; Probability distributions; Chebyshev's theorem; Normal distribution; Applications to operations research; treatment of data; Hypothesis testing; method of least squares; Regression; Applications to engineering problems. Prerequisite: Math 341.

*ENGR 411-A, B, C, D, E, F, G, H refer to special topics in the department of Architectural Engineering, Civil Engineering, Electrical Engineering, Industrial Arts and Technology, Mechanical, Computer Science, Industrial Engineering and Safety Engineering respectively.

DEPARTMENT OF ARCHITECTURAL ENGINEERING

DR. SAMUCHIN (Head)

The Department of Architectural Engineering offers a course of study leading toward a Bachelor of Science degree in Architectural Engineering. The fourth-year curriculum provides a study of architectural, environmental, and structural design of all building types. The program emphasizes the combined fundamentals of architectural aesthetics with the scientific and engineering aspects of planning, design, and construction of buildings.

A background of architectural subjects, such as architectural design, materials of construction, building equipment, office practice, and ethics form the basic nucleus of the architectural discipline.

A full range of engineering and structural courses in steel, timbers, and concrete, with elements such as floor systems, columns, foundations, statically determinate and indeterminate framework, girders, and trusses make possible an understanding of the fundamental principles of engineering.

Unusual opportunities are available through close contact with the many other engineering courses and research programs offered by the School. The Architectural Engineering curriculum integrates these technical resources with social and cultural needs.

The graduate will find many opportunities for employment with private firms, industrial establishments or governmental agencies. With additional years of experience, the graduate architectural engineer may engage in private practice after meeting registration requirements of the state in which he desires to practice. Minimum semester hours required for the Bachelor of Science degree in Architectural Engineering are 143 hours.

DEGREE REQUIREMENTS

GENERAL CORE	83 Cr. Hrs.
Technical Electives	3
Architectural Engineering Core	
Architectural Design	14
History of Architecture	6
Strength of Materials	3
Theory of Structures	5
Materials Construction	3
Working Drawings	3
Environmental Engineering Systems	3
Senior Project	2
Building Equipment	3
Administrative Services	3
Reinforced Concrete Design	3
Surveying	3
Structural Design in Metals	3
Soil Mechanics	3
Total Credit Hours required	141

The Architectural Engineering technical electives are to be selected from the following courses:

1. Environmental and Urban Planning AE320
2. Basic Photography AE 330
3. Descriptive Geometry AE 211

The Humanities electives may be chosen from the following areas: (A combination of any two fields).

Philosophy	(Introduction to Philosophy(PHIL 301
Music	
Art	Art History I and II Art 331-332
Drama	History of Drama I DR 301

CURRICULUM FOR MAJOR IN ARCHITECTURAL ENGINEERING

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
MATH 261, 262	4	4	MATH 341; ENGR 301	3	3
CHM 121; SPCH 220	3	3	PHYS 221, 222	3	3
CHM 121L; ENGR 100	1	1	PHYS 221L, 222L	1	1
ENGR 111, 230	3	3	ENGR 211; CE 211	3	3
ENG 101, 102	3	3	AE 201, 202	3	3
*PE or AFROTC	1	1	HUM ELECT;		
HUM. ELECT.		2	SOC SCI ELECT	2	3
	—	—	ENGR 220, ENGR 440	2	2
	15	17	ENGR 220L	1	
			*PE or AFROTC	1	1
				—	—
				19	19

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
AE 301, 302	3	3	AE 431, 432	3	3
CE 341, 442	3	2	AE 450, 411	2	3
ENG 310; ENGR 200	2	3	AE 441, 442	3	3
ENG 361, 362	3	3	CE 302; AE 430	3	3
CE 313; AE 312	3	3	CE 342; TECH ELECT	3	3
HIST 201, 202	3	3	ENGR 400, 303	1	3
	—	—	CE 343	3	
	18	17		—	—
				18	18

Minimum credits required for the B.S. degree—141, semester hours.

COURSE OFFERINGS

AE 201. Architecutural Design I. (3) Introduction to architectural design; expressions of principles in structural and aesthetic relationship. Lecture, 3 hous; Lab, 6 hous. Prerequisite: ENGR 111.

AE 202. Architectural Design II. (3) Problems of more complex nature involving principles, materials, space concepts and site relationship. Emphasizing design and the use of materials in the development of creative activity. Lecture, 3 hours. Prerequisite: AE 201.

AE 206. Introduction to Building Inspection. (2) General description of the building inspection profession, job responsibilities, job requirements, inspection techniques, and the types of institutions or agencies that utilize the services of building inspectors. (Formerly UTN course Architecture 2006)

AE 211. Engineering Graphics II. (Descriptive Geometry). (3) Curved surfaces, their tangent lines and planes; the intersection of surfaces, developments, shades and shadows, perspective. Prerequisite: ENGR 111.

AE 230. Materials and Processes. (3) Architectural materials and manufacturing processes. Field trips to construction sites and factories. Prefabrication. Industrial design of building components. (Formerly UTN courses Architecture 2310-20.)

AE 260. Art of Architecture. (2) Visual expression and communication of ideas of architecture. (Formerly UTN course Architecture 2600)

AE 270. Structure in Architecture. (3) Fundamentals of architectural design, materials and structure. Includes architectural forms; emphasis on modern architecture and structural systems, such as beams, columns, membranes, plates, shells, cables and arches. Case studies of outstanding European and American architectural projects. (Formerly UTN course Architecture 2700.)

AE 301. Architectural Design III. (3) The design of architectural problems of a complex nature involving principles of organic order and the use of structural elements, site relationship, form and logical concepts to space and the process of architectural composition. Problems in planning with close coordination of site, materials, human needs and structural harmony. Lecture 2 hours; Lab, 6 hours. Prerequisites: AE 201-202.

AE 302. Architectural Design IV. (3) A continuation of Architectural Engineering 301, principles applied in a series of more complex problems, each problem presented on a design need covering the whole field of architectural procedures. Lecture, 2 hours; Lab, 6 hours. Prerequisite: AE 301.

AE 312. Working Drawings. (3) Graphical presentation of building material assembly, construction methods, framing systems and details. Prerequisite: AE 202.

AE 320. Urban Planning. (3) Planning fundamentals; objectives and scope of urban planning; theories of land use patterns; population studies, regression and other quantitative analysis; cohorts survival technique.

AE 330. Basic Photography. (3) Fundamental and creative uses of the camera, including controls, lenses, film and other assessories and basic darkroom procedures.

AE 331. Advanced Photography. (3) A continuation of the fundamental techniques and scope of photographic exploration. Emphasis on individual projects involving creative editing, light and luminanse, and exhibition techniques. Prerequisite: AE 330 or prior experience.

AE 411. Materials and Construction. (3) Prefabricated building materals, manufacturing processes, characteristics of new and old materials; emphasis on relationship between common use of materals and imagination; techniques directed toward limitations and potentialities. Lecture, 1 hour; Lab 2, hours. Prerequisite: ENGR 230.

AE 430. Administrative Services. (3) Principles and methods of cost analysis of material, labor, and equipment production cost for the building trades. Conduct of office practice, organization, contracts, legal and ethical problems; specification writing, estimating and supervision of construction. Prerequisite: Senior Standing.

AE 431. Architectural History. (3) Materials and forms of Architectural and related arts of the past and present, including emphasis on social, relgious, and political life. Prerequisites: AE 201-202.

AE 432. Architectural History. (3) Continuation of Architectural History, AE 431.

AE 433. Aesthetics in Architecture. (3) Architecture among the arts; theory and philosophy of space, imagination, design and materials. (Formerly UTN course Architecture 4320.)

AE 441. Building Equipment. (3) The selection, use and design of mechanical equipment for buildings; problems involving cost, maintenance and purchasing of standard and custom design equipment. Prerequisite: AE 312.

AE 442. Environmental Engineering Systems. (3) Design and layout of heating and air-conditioning systems, illumination and wiring practice, water supply and treatment, drainage and sewage disposal systems. Prerequisite: Physics 222.

AE 450. Senior Project. (2) For completion of senior standards of Architectural Engineering this course is a continuation of course 302. All seniors are given practical problems within the community, having an actual site and having to meet requirements given by the faculty and concerned persons outside the university. Prerequisite: AE 302.

DEPARTMENT OF CIVIL ENGINEERING

MR. HINTON (Head)

The Department of Civil Engineering offers a well balanced progam in engineering education that encompasses all of the major components of civil engineering activities. The students are exposed to materials dealing with the structrual design of buildings, bridges, and dams, design of transportation systems, planning and design of water supply and sanitary systems, and techniques to curb air and water pollution.

The Department has developed a close relationship with industry to provide students majoring in civil engineering with real life job experiences in the civil engineering profession.

DEGREE REQUIREMENTS

Course requirements for all engineering students	89 credit hours
Technical Elective	5
Civil Engineering Core	
Surveying	3
Strength of Materials	6
Fluid Mechanics and Hydraulics	5
Steel and Reinforced Concrete Design	6
Soil Mechanics and Foundation Engineering	5
Environmental Engineering and Water Resources	5
Transportation	3
Structural Testing	1
Structural Analysis	5
Senior Project	2
Total credit hours required	135

CURRICULUM FOR MAJOR IN CIVIL ENGINEERING

FRESHMAN YEAR	Credit Hours Fall	Spring
HIST 201		3
MATH 261, 262	4	4
CHM 121	4	
ENGR 100	1	
ENGR 111, 230	3	3
ENG 101, 102	3	3
PE or AFROTC	1	1
ECO 211		3
	16	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
MATH 341; ENGR 303	3	3
PHY 221, 222	4	4
ENGR 211, 212	3	3
HIST 202; CE 211	3	3
PE or AFROTC	1	1
ENGR 220	3	
SPCH 220		3
	17	17

JUNIOR YEAR	Credit Hours Fall	Spring
HUM ELECT	2	2
ENG 211		3
ENGR 200, 301	3	3
CE 302		3
CE 310, 311	3	2
CE 312; ENG 310	3	
CE 341, 340	3	1
CE 313, 444	3	2
	17	16

SENIOR YEAR	Credit Hours Fall	Spring
ENG 212		3
CE 322, 421	3	2
CE 342, 442	3	2
CE 332; ENGR 430	3	3
CE 343; ENGR 440	3	2
TECH EL (300-400 level)	3	2
ENG 310; ENGR 400	3	1
CE 450		2
	18	17

CE 211. Strength of Materials. (3) Concepts of stress and strain; stress-strain relations and Mohr's circle; stresses and displacements in thin-walled pressure vessels; shafting determinate beams. Three hours lecture. Prerequisite: Engr. 211 (Formerly UTN Engr. 3310).

CE 302. Surveying. (3) Use of surveying instruments in construction surveying, including alignment, grades and layout of buildings; field note procedure, leveling and measuring angles; measurement of distance by tape and stadia, design, calculation and layout of circular, spiral and vertical curves; introduction to optical tooling. Two lectures and two hours lab per week. Prerequisite: Math 261 (Formerly UTN Engr. 3360).

CE 310. Fluid Mechanics. (3) Basic laws of fluid mechanics; effects of viscosity and compressibility; empirical analysis; Navier-Stokes equations; boundary-layer concepts; fluid measurment; turbomachinery. Prerequisite: Engr. 211 (Formerly UTN Engr. 3110).

CE 311. Hydraulics. (2) Application of basic and developed principles of hydraulics. Flow measuremnts, flow in closed conduits, uniform and non-uniform open channel flow; pumps and turbines; basic hydrodynamics; flow similitude and models; Prerequisite: CE 310 (Formerly UTN Envir. 3120).

CE 312. Advanced Strength of Materals. (3) Compound stresses, stress and strain transformation, statically indeterminate problems and elastic stability of columns. Prerequisite: CE 211.

CE 313. Soil Mechanics. (3) Principles of Soil Mechanics, index properties of soil, particle size and gradation. Soil identification and classification, Atterberg Limits. Soil structures, permeability of soils, capillarity and frost action in soils, theory of quicksands and concept of effective stress in soils, stress distribution in soils, compaction of soils, compressibility and settlement due to consolidation. Two lectures and two hour labs per week. Prerequisite: CE 211 (Formerly UTN CE 4450).

CE 322. Water Supply. (3) Planning of water supply system, population estimation, industrial and municipal water demand, hydrologic considerations of surface and ground water sources, design of distribution systems and impoundment works, water quality criteria and water treatment processes and operations. Prerequisite: CE 311 (Formerly UTN Envir. 4210.

CE 332. Transportation. (3) To introduce the student to rural and urban transportation problems and perspectives using the planning process in establishing existing travel patterns, modeling of demand, proposing alternatives, evaluation procedures, and plan implementation. To introduce the basic fundamentals for the design, construction and maintenance and operation of various transportation modes, their guideways and terminals. Prerequisites: CE 302 and CE 211.

CE 333. Elementary Hydrology. (3) Elements of hydrology including both descriptive and quantitative aspects. Prerequisite: Engr. 311. (Formerly UTN course Environmental Engineering 3330).

CE 340. Structural Testing. (1) Laboratory course dealing with the measuremnt of the engineering properties of construction materials. Prerequisite: CE 211.

CE 341. Theory of Structures I. (3) Reactions; moments, shears and stresses in trusses and framed structures from fixed loads; indeterminate and non-homogeneous beams; column theory; influence lines; three dimensional framework. Three hours lecture. Prerequisite: CE 211 (Formerly UTN CE 3210).

CE 342. Reinforced Concrete Design. (3) Behavior and design of rectangular and T-sections in bending and shear, bond stress and development of reinforcement, design of footings and one-way slabs. Prerequisite: CE 341.

CE 343. Steel Design. (3) The analysis and design of structural elements and connections for buildings, bridges and specialized structures, including: roof and bridge trusses, plate girders and built-up columns, and main compression members. Prerequisite: CE 341.

CE 360. Transportation Planning. (4) To introduce the student to rural and urban transportation problems and perspectives using the planning process in establishing existing travel patterns, modeling of demand, prooposing altrenatives, evaluation procedures, and plan implementation. To introduce the basic fundamentals for the design, construction and maintenance and operation of various transportation modes, their guideways and terminals. Prerequisite: Junior standing. (Formerly UTN course Civil Engineering 3600.)

CE 400. Unit Operations of Environmental Pollution Control. (2) Physical unit operations and chemical unit processes employed in air, land and water pollution control activities. Theoretical development of design models and evaluation of functional performances. Topics include mixing, sedimentation, filtration, mass transfer, and absorption. Prerequisite: Envir. 423 (Formerly UTN course Environmental Engineering 4000).

CE 403. Man and His Environment. (3) A study of the interaction of technology with environment, including air, water, natural resources and life support systems. Causes, analysis, and measurement of pollution. Survey of pollution control devices, systems and concepts and current research. Open to all upper division university students. (Formerly UTN Envir. 4320.)

CE 421. Wastewater Treatment. (2) Theory and design of wastewater collection, treatment and disposal. Effects of pollution on the environment. Prerequisite: Chem. 121.

CE 423. Environmental Engineering Laboratory. (3) Water chemistry and water microbiology, unit operations and processes involved in water and sewage treatment, industrial waste treatment, solid waste treatment and disposal, air pollution control, noise control. Prerequisite: Chemistry 121.

CE 431. Traffic Control. (3) Study of traffic congestion, road and street capacity, regulation of moving traffic, signs and signals, traffic counts, traffic laws and regulations, traffic accidents and street modifications. Prerequisite: CE 332 (Formerly UTN CE 4640).

CE 432. Highway Engineering. (3) To introduce the student to the concepts of design, construction, operation and maintenance of highway facilities, including the integration and application of various engineering principles and techniques of a comprehensive team project with lectures, labs and role playing. Prerequisite: CE 322 (Formerly UTN CE 4600).

CE 442. Theory of Structures II. (2) Classical techniques of indeterminate structural analysis including slope deflection and moment distribution. Prerequisite: CE 341.

CE 443. Advanced Reinforced Concrete Design. (3) Floor slab systems including flat slabs and two-way slabs, integrated building unit analysis and design, retaining walls and introduction to prestressed concrete. Prerequisite: CE 342.

CE 444. Foundation Engineering. (2) Shearing strength of soils, Mohr-Coulomb theory of strength, lateral earth pressure, retaining walls, shallow foundation and bearing capacity of soils, spread and combined footings, raft foundation. Deep foundation, piles, caissons and piers. Prerequisites: CE 312, CE 313.

CE 449. Advanced Steel Design. (3) Design of complete structures including buildings and bridges. Introduction to plastic design concepts. Prerequisites: CE 342, CE 343.

CE 450. Senior Project. (2) A theoretical or experimental project on special topics in Civil Engineering coupled with a report and a seminar. Prerequisite: Senior standing.

CE 454. Computer Utilization. (3) Computer use, the economic justification, and the extent of its ues by industry. The utilization of computers for the solution of civil engineering problems. Prerequisite: CE 341. (Formerly UTN CE 4550).

CE 455. Engineering Behavior of Soils. (3) Plastic and elastic behavior of soils, determination and use of engineering properties of in-situ soils. Two hours lectures, three hours lab. (Formerly UTN CE 4550).

CE 456. Stabilization of Soils. (3) Mechanical Stabilization of soils by compaction, drainage, and blending; chemical stabilization of soils with ad-mixtures; water-proofing and modifying soils with additives. Two hours lecture, three hours lab. Prerequisite: CE 313. (Formerly UTN CE 4560).

CE 460. Solid Waste Management. (3) Quantities and characteristics of solid wastes; collection methods and equipment; disposal and recycle techniques; economics; planning and management; an introductory course on the concepts of air pollution; analysis of the relationship among emission sources, meteorology and topographic factors and adverse effects on receptors; engineering approaches for air pollution control. Prerequisite: Envir. 432 and Senior standing. (Formerly UTN Environmental Engineering 4600).

CE 462. Airport Planning and Design. (3) To introduce the student to the airport design process, including airport master planning process; air site considerations, including runway configuration, capacity, geometrics, and lighting, land site considerations, including terminal layout and design, and ground access systems and parking. Prerequisites: CE 302,332. (Formerly taught at UTN as Special Topics, CE 4910, 20 or 30.

CE 464. Traffic Engineering. (3) Study of traffic congestion, road and street capacity, regulations, pedestrian control, traffic signs, and signals, traffic courts, traffic laws and regulations, traffic accidents, and street modifications. Prerequisite: CE 332. (Formerly UTN CE 4640).

DEPARTMENT OF ELECTRICAL ENGINEERING

MR. MALKANI (Head)

This department offers a major program leading to the Bachelor of Science degree in Electrical Engineering. Also the Department offers two service courses in circuits and devices for non-majors.

The Department of Electrical Engineering offers basic courses in the following areas: Control Systems, Digital Systems, Communication Systems Theory, Electronics, Electromagnetic Theory, Energy Conversion, Electrical Circuits, Network Theory and Power Systems. Specializations in any of the above areas is provided through a choice of technical electives.

DEGREE REQUIREMENTS

Core requirements for all engineering students	89 credit hrs.
Technical Electives	9
Electrical Engineering core	
Electrical Circuits II (EE-212,212L)	4
Electronics I and II (EE-331,332,331L,332L)	8
Linear Systems (EE-320)	3
Electromagnetic Theory I (EE-321)	3
Energy Conversion I (EE-341,341L)	4
Power Systems (EE-342)	3
Communication Systems (EE-350)	3
Control Systems I (EE-400,400L)	4
Digital Logics (EE-310,310L)	4
Senior Project (EE-450)	2
	136

The technical electives, courses at least the 300 level, may be chosen from the following courses only, except in specially approved cases or as approved by advisor.

Physics 361—Solid State Physics (3)
EE 322—Electromagnetic Theory II (3)
EE 401—Control Systems II (3)
EE 430—Digital Computer Structures (3)
EE 454—Antennas (3)
EE 480—Introduction to Microprocessors (3)
Engr. 330—Analog Computers (3)
Engr. 340—Numerical Methods in Engineering (3)
Engr. 410—Introduction to Non-Linear Optimization

The Humanities Electives may be chosen from two of the following fields.

Philosophy
Music
Art
Drama

CURRICULUM FOR MAJOR IN ELECTRICAL ENGINEERING

FRESHMAN YEAR	Credit Hours Fall	Spring
MATH 261, 262	4	4
CHM 121; ECON 211	3	3
CHM 121L, ENGR 100	1	1
SPCH 220; ENGR 111	3	3
ENG 101, 102	3	3
PE or AFROTC	1	1
HUM ELECT		2
	15	17

SOPHOMORE YEAR	Credit Hours Fall	Spring
MATH 341; ENGR 303	3	3
PHYS 221, 222	3	3
PHYS 221L, 222L	1	1
ENGR 200, EE 212	3	3
ENGR 220, 230	2	3
ENG 310; HIST 201	3	3
PE or AFROTC	1	1
ENGR 220L; EE 212L	1	1
	17	18

JUNIOR YEAR	Credit Hours Fall	Spring
EE 331, 332	3	3
EE 331L, 332L	1	1
EE 341, 310	3	3
EE 310L		1
EE 341L		1
ENGR 211, 212	3	3
EE 320, 321	3	3
HIST 202; ENG 211	3	3
	16	18

SENIOR YEAR	Credit Hours Fall	Spring
EE 400, 350	3	3
EE 400L		1
EE 342; ENGR 430	3	3
TECH Elect (300-400 level)	3	6
EE 450; ENG 212	2	3
HUM Electives	2	
ENGR 400	1	
ENGR 301, 440	3	2
	17	18

EE 200. CIRCUITS I. (3) Fundamental concepts of charge, current, voltage, power; passive and active circuit elements; Kirchoff's 'law, mesh and node analysis superposition; Thevenin's and Norton's Theorems; transient and steady state response of RL, RC and RLC circuits; phasers and the concepts of impedance poles and zeroes. Prerequisites: Math 262. Three hours includes six labs. (Formerly UTN EE 2010).

EE 201. Circuits II. (3) Steady state AC circuits, polyphase circuits and general network theorems; series and parallel resonance; magnetically coupled circuits; one and two port networks. Prerequisite:EE 200. Three hours includes six labs. (Formerly UTN EE 2020).

EE 212, 212L. Circuits II. (4) Steady state AC circuits, polyphase circuits and general network theorems; series and parallel resonance; magnetically coupled circuits; one and two port networks. Prerequisite: ENGR 200. Lecture: 3 credits; Laboratory: 1 credit. (Formerly UTN EE 2120).

EE 310, 310L. Design of Digital Logic Systems. (4) This course is for those who want to know how logic circuits can be put together to form working digital computing systems. Among the topics included in this course are: Overview of computing; combinational and sequential logic circuit design, analysis and minimization; computing circuits; control circuits. Prerequisite:EE 212L; Lecture: 3 credits; Laboratory: 1 credit.

EE 312, 312L. Circuits and Devices. (4) General Network theorems, electronic devices, transistors and amplifiers, linear models of diodes and applications, logic circuits and digital devices, magnetically coupled circuits and transformers, electromechanical devices, and new methods of direct energy conversion. Prerequisite: ENGR 200. Lecture: 3 credits; Laboratory: 1 credit.

EE 320. Linear Systems. (3) Fourier series and Fourier integral, Laplace transform, and its applications. Network analysis by methods of tie-sets and cutsets. State variables, dynamic equations, difference and discrete state equations, signal flow graphs. Prerequisite: EE 212.

EE 321. Electromagnetic Theory I. (3) Vector analysis, vector algebra, coordinate system and transformations. Coulomb's Law, E and D fields, Gauss's law, Divergence. Bio-Savart Law, Ampere's Law, B and H fields, stroke's theorem, Magnetic Boundary Conditions. Prerequisite: Junior standing.

EE 322. Electromagnetic Theory II. (3) Poisson's and Laplace equations, time varying field and Maxwell's equations, applications of electromagnetic theory to transmission lines, uniform plane waves, standing wave ratio, wave guide structures, microwave devices and antennas. Bi-weekly laboratory. Prerequisite:EE 321.

EE 331, 331L. Electronics I. (4) Diode characteristics, real, ideal and placewise linear models; transistor circuit biasing and stability analysis; small signal analysis of basic tranasistor amplifiers; AC and DC analysis of multiple transistor circuits. Prerequisite: EE 212. Lecture 3 credits; Laboratory: 1 credit. (Formerly UTN EE 3810).

EE 332, 332L. Electronics II. (4) Analysis and design of feedback and power amplifiers; field effect transistor amplifiers; audio frequency amplifier frequency analysis; high frequency analysis of transistor amplifiers; Nyquist, Bode and pole-zero analysis. Prerequisite: EE 331. Lecture: 3 credits; Laboratory: 1 credit. (Formerly UTN EE 3820).

EE 341, 341L. Energy Conversion I. (4) Magnetic circuits, signal phase and three phase transformers, essentials of voltage and torque equations as applied to electromechanical energy conversion devices. Theory, analysis performance and applications to DC machines, synchronous machines and induction motors. Prerequisite: EE 212. Corequisite: EE 321; Lecture: 3 credits. Laboratory: 1 credit. (Formerly UTN EE 3080).

EE 342. Power Systems. (3) System model representation of synchronous machines, transformers and short, medium and long transmission lines. Per unit representations. Symmetrical components, symmetrical and unsymetrical faults, load flow analysis. Prerequisite: EE 341.

EE 350. Communication Systems. (3) Spectural analysis, filters, amplitude modulation, frequency modulation, phase modulation, pulse amplitudeand time modulation, pulse code modulation and delta modulation. Emphasis in on the band with requirements for these systems, as well as explanation of modulation, transmitting, receiving and demodulating circuits. Prerequisite: EE 320.

EE 381. Electronics I. (3) Solid state physics, current conduction in semiconductors, theory of p-n junctions, characteristics and equivalent circuits of FET and bipolar transistors; single stage and multistage amplifiers; integrated circuit technology overview. Prerequisite: EE 201. Three hours include six labs. (Formerly UTN EE 3810).

EE 382. Electronics II. (3) Characteristic and equivalent circuits of vacuum tubes, analysis of multistage and amplifiers, including frequency response; tuned amplifiers; feedback. Prerequisite: EE 381. Three hours includes six labs. (Formerly UTN EE 3820).

EE 400, 400L. Control Systems I. (4) Classical Control System design and analysis; transfer functions electrical mechanical electromechanical systems; respones of second order systems; sensitivity, steady state error and transient analysis; stability analysis with Nyquist, Bode and root locus plots; design of cascade and feedback compensation. Prerequisites: EE 320, EE 341; Lectures: 3 credits; Laboratory: 1 credit.

EE 401. Control Systems II. (3) Modern control system design analysis using state variable methods; analysis of non-linear control systems using plane and describing function methods; popov's methods; introduction of optimal control theory and applications; controllability and observability; Pontryagin's maximum principle and its application. Prerequisite: EE 400.

EE 430. Digital Computer Structures. (3) This course is composed of readings which are descriptions of the major computer system in use today. At least, one micro-computer, one mini computer, one standard computer, and one super-computer will be discussed and analyzed. Analysis includes size input-output capacity, speed and the physical connection and operation of the various parts of a computer. Prerequisite: EE 310, ENGR 220.

EE 450. Senior Project. (2) A theoretical or experimental project on special topics in electrical engineering coupled with a technical report and seminar. Prerequisite: Senior Standing.

EE 454. Antennas. (2) Radiation, hertizian dipole, linear antennas, antenna gain and impedance, antenna arrays, other simple antenna types. Prerequisite: 321. (Formerly UTN EE 4540).

EE 480. Introduction to Microprocessors. (3) Topics served include: number systems, microprocessing hardward, memory, addressing, instructions, peripheral interfacing and programming problems. Prerequisite: ENGR 220.

EE 491. Special Topics. (3) Problems relatng to recent development and current practices in Electrical Engineering. Prerequisite: Consent of Instructor.

DEPARTMENT OF MECHANICAL ENGINEERING

MRS. CLARK, P.E. (Head)

The Mechanical Engineering Program offers a comprehensive course of study in which the fundamentals of engineering are taught and a broad foundation is established for the pursuit of specialized areas in this field. Students may orient their programs toward the thermal sciences or machine design. In this current era, when efficient and economical means of energy production is an international concern, the mechanical engineer is in the forefront to meet this challenge. Mechanical engineers are concerned with the production, transmission and use of energy. They design and develop machines that produce power, such as internal combustion engines, steam and gas turbines, jet and rocket engines and nuclear reactors. Also, their task is to design and develop machines that use power, such as refrigeration systems, air conditioning equipment and machine tools. Various specialized areas of work have been developed within this field, and since mechanical engineers are employed in nearly all industries, their work varies with the industry and functions performed. Among these specialities are motor vehicles, marine equipment, steam power, heating, air-conditioning, instrumentation and machines for specialized industries, such as petroleum, rubber and plastics and construction.

Mechanical engineers are involved in the whole industrial spectrum from research, development, testing and design work to administrative and management activities. The field is open and in great need of young minds with new ideas.

The Department offers a major program leading to the Bachelor of Science in Mechanical Engineering. Degree requirements are listed below:

DEGREE REQUIREMENTS

Engineering Core Requirements	89 Credit Hours
Technical Electives	6 Credit Hours
Department Core Requirements	
Strength of Materials, CE 211, 312	6 Credit Hours
Fluid Mechanics	3 Credit Hours
Circuits and Devices, EE 312	4 Credit Hours
Thermodynamics II, ME 302	3 Credit Hours
Materials Processing, ME 310	3 Credit Hours
Kinematics, ME 321	3 Credit Hours
Machine Design, ME 322	3 Credit Hours
Heat Transfer, ME 340	3 Credit Hours
Junior Mechanical Lab, ME 351, 352	2 Credit Hours
Senior Mechanical Lab, ME 401, 402	2 Credit Hours
Senior Project, ME 450	2 Credit Hours
Engr. Graphics II, ME 112	3 Credit Hours
ME Systems	3 Credit Hours
	135 Credit Hours

The ME Systems course is to be chosen from the following:
Instrumentation and Automatic Controls, ME 410
Heating and Air Conditioning, ME 420
Mechanical Energy Conversion, ME 430
Manufacturing Engineering, ME 440

The Humanities Electives may be chosen from two of the following fields:
Philosophy
Music
Art
Drama

CURRICULUM FOR MAJOR IN MECHANICAL ENGINEERING

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
MATH 261, 262	4	4	MATH 341; ENGR 303	3	3
CHM 121; HUM ELECT	3	2	PHYS 221, 222	4	4
CHM 121L; ENGR 100	1	1	ENGR 211, 212	3	3
ENGR 111; ME 112	3	3	ENGR 220, 230	3	3
ENG 101, 102	3	3	ENGR 200; CE 211	3	3
PE or ROTC	1	1	PE or ROTC	1	1
	15	14		17	17

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
ENGR 301; ME 310	3	3	SPCH 420; HUM ELECT	3	2
ME 321, 302	3	3	ME 340; ENGR 440	3	2
CE 310; ME 322	3	3	ENG 211, 212	3	3
HIST 201, 202	3	3	ENG 310; ENGR 430	3	3
ME 351, 352	1	1	*ME SYS: ME 450	3	2
CE 312		3	TECH ELECT	3**	3**
EE 312, ECON 211	4	3	ENGR 400	1	2
	17	19		19	17

*To be chosen from ME 410, ME 420, ME 430, ME 440.
**Must be 300-400 level.

DEPARTMENT OF MECHANICAL ENGINEERING

Course Offerings

ME 112. Engineering Graphics II. (3) Representation of screw threads, fasteners, springs, auxiliary and sectional views, cams and gears and functional drafting. Working drawings of machine parts and basic descriptive geometry. Prerequisite: ENGR 111. Six laboratory hours per week.

ME 302. Thermodynamics II. (3) Study of gas mixtures involving ideal gases, the Gibbs Dalton Law; properties of moist air, the psychrometric chart; gas power and refrigeration cycles, thermodynamic relations, equations of state chemical reactions, the thermodynamics of combustion; availability and irreversibility. Prerequisite: ENGR 301.

ME 310. Materials Processing. (3) Application of equilibrium diagnosis to the physical and mechanical properties of materials and their heat treatment. Casting, deformation processes. Gaseous and arc welding and welding principles. Metal removing and machining processes. Prerequisites: ENGR 230, CE 211.

ME 321. Kinematics. (3) Anaalysis of mechanisms. A study of instantaneous centers, velocities, accelerations and forces in plane mechanisms by analytical and graphical methods. A study of rolling sliding contact including belts, chains, cams and tooth gearing in plane and epicyclic train. Prerequisites:
MATH 262, ME 112, ENGR 212.

ME 322. Machine Design. (3) The design of machine parts, including shafting, gears, brakes, clutches, bearings (sliding and anti-friction), springs, flywheels and frames. Prerequisites: ME 321, CE 211.

ME 340. Heat Transfer. (3) Introduction of heat transfer mechanisms; conduction heat transfer including steady state one, two and three dimensional conduction and conduction in the unsteady state; convection heat transfer including forced and free convection; radiation heat transfer; heat exchangers. Prerequisite: ENGR 301.

ME 344. Heat Transfer. (3) Heat transfer through conduction and radiation with experimental labs. Three 3-hour labs related to heat transfer and thermodynamics. Prerequisites: ENGR 301, MATH 282. (Formerly UTN course Mechanical Engineering 3440).

ME 351-352. Junior Mechanical Laboratory. (1-1)A comprehensive range of laboratory experiments. The student is taught how to measure physical thermal and mechanical properties and is introduced to a wide variety of instrumentation. Electromechanical instrumentation and the transfer function concept of calibration is emphasized. The short form of an engineering report is taught. Elementary experiments in mechanics of machines. Prerequisite: Junior Standing.

ME 360. Mechanical Design. (3) Application of stress analysis to mechanical design. Prerequisite: ENGR 331. (Formerly UTN course Mechanical Engineering 3600).

ME 361. Mechanics of Machinery. (3) Machine motions, graphical and analytical methods; instantaneous centers; velocities; accelerations; Newton's Laws; work, energy, impact. Prerequisites: GRAPHICS 152, ENGR 132. (Formerly UTN courses Mechanical Engineering 3610-20).

ME 362. Mechanics of Machinery. (3) Single degree vibrating systems; multiple degree vibrating systems; static and dynamic forces; balancing; vibration isolation. Prerequisite: ME 361. (Formerly UTN course Mechanical Engineering 3630).

ME 401-402 Senior Machanical Laboratory. (1-1) Experiments in the following areas: balancing of machines, vibrations and noise, internal combustion engines, heat transfer, air conditioning and control systems. Prerequisite: ME 352.

ME 410. Instrumentation and Automatic Control. (3) Dynamic response of instruments and measurement systems. Transducers. The influence of a measuring system on the process to be measured. Transfer function representation of machines or electromechanical elements. Transient and frequency response of control elements. Linear analysis of simple closed-loop systems. Criteria of stability and improvement of systems performance. Design of simple systems. Prerequisites: ENGR 303, EE 312.

ME 420. Heating and Air Conditioning. (3) Principles of heating, ventilating and air-conditioning, systems in current use. Refrigeration cycles, refrigerant properties, heating, cooling loads, psychrometry; processes for heating, cooling, humidifying, dehumidifying, purifying; heat transfer principles; controls. Heat loss and gain computations. Design and layout of heating and air-conditioning systems. Prerequisite: ME 302, Co-requisite: ME 340.

ME 430. Mechanical Energy Conversion. (3) Energy sources: solar, chemical, hydraulic

and nuclear. Discussion of solar cells, fossil fuels, hydraulic turbines, fuel-cells, thermionic generators, thermoelectric generators, MHD generators, fission and fusion reactors and the steam power plant. Prerequisite: ME 302.

ME 440. Manufacturing Engineering. (3) A quantitive study of the manufacturing processes of metal forming, metal-cutting and non-traditional machine operations combining the theory of material science with the synthesis of mechanical design. Lab experiments and demonstrations in material behavior characteristics, metal forming operations and topics related to metal cutting e.g. machinibility, cutting forces, surface finish, metrology, numerical control and process capabilities. Prerequisites: Senior Standing, ME 310, CE 312.

ME 442. Heat Transfer. (3) Heat transfer by free and forced convection, heat transfer in phase change, heat transfer in high speed flow, heat exchanger applications. Prerequisite: ME 340. (Formerly UTN course Mechanical Engineering 4420).

ME 445. Lubrication. (3) Hydrodynamic theory of lubrication of sliding bearings, application of Navier-Stoles equations to infinite and finite bearings; analytical and numerical solutions; applications to design and three short experimental labs. Prerequisite: ENGR 311. (Formerly UTN course Mechanical Engineering 4450).

ME 450. Senior Project. (2) A culminating design project in Mechanical Engineering where the student applies analytical and experimental techniques to the solution of a problem. Written and oral reports must be given by all students. Prerequisite: Senior Standing.

ME 460. Fluid Dynamics. (3) Review of the foundations of fluid dynamics and thermodynamics as related to control volumes; Introduction to compressible flow; one-dimensional isentropic flow; normal shock waves; flow in constant area ducts with friction and flow in ducts with heating and cooling. Prerequisites: CE 310, ME 302.

ME 467. Machine Elements and Design. (3) Cams, gearing, brakes, clutches, bearings, lubrication; design of machinery; selection of materials; strength considerations. Prerequisites: ENGR 311, ME 362. (Formerly UTN course Mechanical Engineering 4670-80).

ME 468. Machine Design. (3) Design of a complete machine. Prerequisites: ME 361-2, ME 467. (Formerly UTN course Mechanical Engineering 4680).

ME 470. Mechanical Vibrations. (3) Undamped and damped vibrations with one and two degrees of freedom. Methods of solution for *n*-degree of freedom systems. Transient vibration in one degree of freedom systems. Balancing and shirling of shafts. Noise and noise control. Prerequisites: ENGR 303, ENGR 212.

ME 471. Thermal Environmental Systems. (3) Refrigeration cycles, psychrometric processes; refrigeration and air conditioning systems. Prerequisites: ME 302, 340. (Formerly UTN courses Mechanical Engineering 4710-20).

ME 472. Thermal Environmental Systems. (3) Equipment ratings test procedures; design of refrigeration and air conditioning systems. Prerequisite: ME 471. (Formerly UTN course Mechanical Engineering 4730).

ME 480. Advanced Machine Design. (3) The proportioning of machine elements by the application of mechanics and the principles of strength of materials modified by practical considerations, together with an elementary study of friction and lubrication. Use of computer for kinematic analysis and stress analysis. Design exercises. Prerequisite: ME 322.

ME 490. Internal Combustion Engines. (3) Fundamental principles of engine design and application including cycle analysis, gas analysis, effect of operation and engine design on air pollution, etc. Prerequisite: ME 302.

ME 491-2. Special Topics. (3) Problems relating to recent developments and current practice in Mechanical Engineering. Prerequisite: Consent of the Instructor. (Formerly UTN course Mechanical Engineering 4910-20-30).

BACHELOR OF SCIENCE IN ENGINEERING PROGRAM

DR. HAILEY, P.E. (Coordinator)

The Bachelor of Science in Engineering program is designed to offer adult students a maximum flexibility in course work selection which may suit their specfic needs to enable the student to deal with a broad range of engineering problems. Students must declare nine (9) semester hours in one area of engineering elective and may take more courses in that area or may choose to spread their course work over many fields. This choice is left to the students to make, within the selection of courses which are offered. Areas of electives include Civil Engineering, Computer Science, Electrical Engineering, Industiral Engineering, Mechanical Engineering and Safety Engineering.

The Bachelor of Science in Engineering requires approximately three years of common course work of all students. Electives comprise the other year. There are 9 hours of technical electives, 11 hours of design electives, and 7 hours of non-technical electives. In order to assure an appropriate breadth in each engineering student's academic program, no more than 12 of 18 hours of engineering electives may be taken in the same discipline. The student is prepared to provide a wide variety of engineering services and may pursue one or more engineering areas further through the selection of electives. This program is specially designed for former UTN engineering students. Students seeking information about specialized engineering degrees should refer to the specific department in the School of Engineering and Technology.

DEGREE REQUIREMENTS

Core Requirements for all students	106 credit hours
Technical Electives	9
Design Electives	11
Human Socal Electives	3
Health	4
Total credit hours required	133 credit hours

CURRICULUM FOR THE BACHELOR OF SCIENCE IN ENGINEERING

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
MATH 261-62	4	4	MATH 341; 342	3	3
ENG 101-02	3	3	ENG 211 or 212	3	
CHM 181H, 182H	4	4	CS 220		3
ENGR 114, 115	2	2	PHYS 231, 232	3	3
ENGR 101, 213	2	3	ENGR 214, 215	3	2
HEALTH, ENGR 213L	2	1	EE 200, 201	3	3
	17	17	ENGR 214L, 215L	1	1
			HEALTH		2
				16	17

JUNIOR YEAR	Credit Hours Fall	Spring
HIST 201, 202	3	3
TECH ELECT		3
ENGR 314	2	
ENGR 315		2
ENGR 331, CE 341	3	3
ENGR 345		3
HUM SOC ELECT	3	
ENGR 301	3	
EE 381, ME 344	3	3
	17	17

SENIOR YEAR	Credit Hours Fall	Spring
TECH ELECT	3	3
IE 452, 322	3	3
ENGR 415, ENGR 423	3	2
DES ELECT	3	6
ENGR 414		2
ENGR 404	4	
	16	16

COMPUTER SCIENCE

COURSE OFFERINGS

CS 110. Computers and Society. (2) History of computing systems; capabilities of a computer; applications in the humanities, social science, sciences and engineering; future advances in computing; impact of computers on modern life. (Formerly UTN course Computer Science 2130).

CS 121. Introduction to Computing. (2) Algorithms, programs and computers. Organization and characteristics of computers. Survey of computers, languages, systems and applications. Emphasis on design solutions to problems. Prerequisite: High School algebra. (Formerly UTN course Computer Science 2140).

CS 220. Computer Programming—FORTRAN. (3) FORTRAN or another high-level language used for solving problems in science and engineering. Prerequisite: Math 182; BE 141; CS 121; or permission of instructor. (Formerly UTN course Computer Science 3150).

CS 221. Computer Programming—COBOL. (3) COBOL or other data processing language. Prerequisite: CS 121 or permission of instructor. (Formerly UTN course Computer Science 3410).

CS 222. Computer Programming—SNOBOL. (3) SNOBOL or high-level language of interest to students in the Humanities. Prerequisite: CS 121 or permission of instructor. No previous UTN course.

CS 225. Advanced COBOL. (3) Application of COBOL to business problems. Topics include file processing, sorting, subroutines and structures programming. Prerequisite: CS 221. (Formerly UTN course Computer Science 3910).

CS 230. Discrete Mathematical Structures. (3) Sets, relations, Boolean algebra, propositional logic, functions and computability; graph theory and its applications to computer science; set theoretical characterizations of computing machines and computing languages. Prerequisite: CS 121, Math 182. (Formerly UTN course Computer Science 3715).

CS 240. Computer Organization I. (3) Assembly language programming including addressing methods, representation of information, instruction executing and I/O programming. Prerequisite: CS 220. (Formerly UTN course Computer Science 3550).

CS 245. Computer Organization II. (3) Basic computer architecture. Organization and structure of major computer components, both hardware and software. Prerequisite: CS 240. (Formerly UTN course Computer Science 3560).

CS 250. Data Structure. (3) Data structures and algorithms for their manipulation. Arrays and lists, stacks, queues, rings, doubly-linked lists, trees, dynamic storage allocation; organization of files. Prerequisite: CS 230. (Formerly UTN course Computer Science 4510).

CS 305. Programming Languages. (3) Comparison and analysis of programming languages, their characteristics and implementation. Languages to be discussed will include SNOBOL, ALGOL, LISP, APL, PASCAL, and PL/1. Prerequisite: CS 250. (No previous UTN course).

CS 340. Logic Design. (3) Switching algebra, logic design of combinational circuits, minimization methods; sequential circuit analysis and synthesis. Prerequisite: CS 230. (Formerly UTN course Computer Science 4650 and Electrical Engineering 4620).

CS 345. Analog Computers. (3) Analog computing; problems set-up and scaling; multipliers; function generators; operational amplifiers; stabilization; and accuracy. Prerequisite: CS 220, knowledge of differential equations. (Formerly UTN course Computer Science 4640 and Electrical Engineering 4610).

CS 370. Data Management Systems. (3) Data organization and storage techniques. Designing systems by organizing files and segmenting problems into programs to make efficient use of hardward devices. Documentation methods and techniques for modifying systems. Communication problems along individuals involved in system development. Prerequisites: CS 225, CS 250. (Formerly UTN course Computer Science 4910).

CS 380. Introduction to Operations Research. (3) Introduction to various methods of system optimization. Simplex method; Search techniques, gradient methods; dynamic programming, integer programming, and geometric programming. Applications from management science, engineering, economics and physical sciences. Prerequisites: CS 220, Engr. 345, Math 182. (Formerly UTN course Computer Science 3510).

CS 385. System Stimulation. (3) Discrete simulation models, queueing theory, and stochastic processes. Comparison of simulation languages. Simulation methods including Monte Carlo techniques. Prerequisites: CS 220, Engr. 345, 182. (Formerly UTN course Computer Science 3520).

CS 390. Numerical Analysis. (3) Interpolation and approximation, numerical differentiation and integration, roots of equations. Prerequisites: CS 220, Math 342, Math 462. (Formerly UTN course Computer Science 4225).

CS 410. Operating Systems. (3) Hardware interrupt systems and concurrence of I/O operations. Multiprogramming systems, memory management, protection, resources allocation and control, job management and task management; real time systems, time sharing systems; paging; virtual memory, schedulers, reliability, file management services and system accounting. Prerequisite: CS 245. (Formerly UTN course Computer Science 4610).

CS 420. Complier Construction. (3) Review of program language structure, translation, loading, executing and storage allocation. Compilation of simple expressions and statements. Organization of a complier including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, erro diagnostic, object code optimization and overall design. Prerequisite: CS 250. No equivalent UTN course.

CS 440. Artificial Intelligence. (3) Topics in machine intelligence. Prerequisite: CS 250. No equivalent UTN course.

CS 450. Computer Graphics. (3) Prerequisite: CS 250. No equivalent UTN course.

CS 460. Microprocessors. (3) Programming and use of microprocessors. Topics covered include: number systems, microprocessing hardware, memory, addressing, instructions, peripheral interfacing and programming problems. Prerequisite: CS 220.(Formerly UTN course Computer Science 4110).

CS 480. Computer Science. (3) No equivalent UTN course.

CS 490. Special Topics. (3) May be repeated for up to 6 hours credit. Individual topics as approved by the program chairman. (Formerly UTN course Computer Science 4920-30).

INDUSTRIAL ENGINEERING

COURSE OFFERINGS

IE 322. Work Methods and Design. (3) Job analysis, job evaluation, design of wage structures design of work-place layouts, flow charting, activity chart and analysis, and methods improvement. Laboratory work included. (Formerly UTN course Industrial Engineering 3220).

IE 344. Quality Control. (3) Application of statistical methods to the control of quality of manufactured parts and techniques of inspection. Laboratory work included. Prerequisite: Statistics 345. (Formerly UTN course Industrial Engineering 3440).

IE 351. Industrial Operations Research I. (3) Linear Programming including simplex, transportation, and assignment models. Introduction to dynamic programming and network analysis. Prerequisites: Engr. 345, CS 220. (Formerly UTN course Industrial Engineering 3520).

IE 352. Industrial Operations Research II. (3) Introduction of quantitative analysis of industrial systems, including model formation, queing theory, inventory analysis and simulation techniques. An introduction to random processes and the use of probabilistic methods in replacement and industrial analysis. Prerequisite: IE 351. (Formerly UTN course Industrial Engineering 3510).

IE 406. Production and Inventory Systems. (3) Fundamentals and applications of statistical forecasting for production planning, inventory analysis and control techniques. Production planning procedures, economic start quantity analysis and production scheduling and control models. The overall production process as in integrated systems. Prerequisites: IE 351 and IE 352. (Formerly UTN course Industrial Engineering 4160).

IE 416. Materials Handling and Facilities Planning. (3) Analysis and planning for the overall problem of moving, packing, and storing of materials; equipment comparison and selection, cost analysis; facilities planning including plant layout, materials handling and service area design. Prerequisites: CE 211, IE 452. (Formerly UTN course Industrial Engineering 4160).

IE 423. Scheduling Systems. (3) Performance measures for job and flow shop scheduling, including both static and dynamic conditions, as well as techniques for generating production schedules. Deterministic and Probabilistic dispatching conditions. Prerequisite: Engr. 345. (Formerly UTN course Industrial Engineering 4230).

IE 424. Predetermined Time Systems. (3) Work design and measurement using a predetermined time system, such as Methods Time Measurement, Basic Motion Time Study or Work Factor. Theory and application. Prerequisite: 322. (Formerly UTN course Industrial Engineering 4240).

IE 425. Work Measurement Application. (3) Application of learning curves, queing theory, standard data methods, and incentive systems to the design of industrial work situations. Prerequisite: IE 322. (Formerly UTN course Industrial Engineering 4250).

IE 452. Engineering Economy. (3) Methods and problems in the selection or replacement of equipment. Decisions among engineering alternatives, involving capital recovery, economic life of equipment and rate of return on investment. (Formerly UTN course Industrial Engineering 4520.)

IE 454. Industrial Development. (2) Factors other than mechanical or chemical which enter into the successful establishment of manufacturing enterprise. Cost and location studies and market analysis to determine the commercial feasibility of new plants of projects. (Formerly UTN course Industrial Engineering 4540.)

IE 459. Simulation. (3) Generation of outcome of a complex random process by computer. Models of complex systems using available simulation languages, Simulation as a design tool in industrial systems. Prerequisite: Computer Science 220. (Formerly UTN course Industrial Engineering 4590.)

IE 481. Human Factors in Work Design. (3) Human capabilities and limitations affecting work place layouts, working environment, design of tools and equipment and communications and response to man-machine systems. Prerequisite: IE 322. (Formerly UTN course Industrial Engineering 4810.)

IE 491. Special Industrial Engineering Topics. (3) Open to seniors with consent of instructor.

SAFETY ENGINEERING

COURSE OFFERINGS

SE 331. Industrial Safety. (2) Accident prevention and control, with emphasis on industrial safty programs and development of safety organization.

SE 410. Industrial Occuaptional Safety and Health I. (3) The Occupational Safety and Health Act of 1970; historical development, standards; reporting, recording and logging, inspection procedures and penalties; standards on buildings; protective equipment; materials handling and storage; machinery, and hazardous materials.

SE 412. Industrial Occupational Safety and Health II. (3) Safety requirements related to compressed gas and air equipment; hand and portable power equipment; welding, cutting, brazing; electrical systems; special industries; safety training and education; illumination; hoists and elevators; cranes and derricks; signs, signals and barricades; traffic control; blasting; concrete forms and shoring; demolition; walking and working surfaces; floor and wall openings; stairs and runways; fire prevention and control; housekeeping; personal protective equipment; ladders and scaffolds; flammable liquids and excavation and trenching.

SE 413. Noise. (2) Characteristics of noise; generation, transmission and suppression; measurement; functions of the ear in receiving and processing sound; adverse effects of the noise environment; measurement of hearing loss, federal and state regulations pertaining to noise.

SE 421. Hazardous Materials. (2) Chemical characteristics relative to storage, handling, and transporting hazardous materials including oxidizing and combustible solids, flammable liquids, and radioactive compounds. Appropriate emergency actions, fire fighting and control.

DEPARTMENT OF INDUSTRIAL ARTS AND TECHNOLOGY

MR. RYAN (Acting Head)

The Department of Industrial Arts and Technology is designed to offer instruction for the purpose of preparing and upgrading teachers of industrial subjects, safety and driver education and technological middle management positions for industry, government and other agencies. The department offers a program leading to the Bachelor of Science degree with majors in the following areas: Technical Aeronautics, Industrial Technology and Transportation Services and Technology. The department also offers a program leading to the Associate of Science degree in Fire Science. Students must have at least a 2.0 average in all lower division area courses before enrolling in upper division area courses. The student is expected to complete a minimum of 135 semester hours of course work to earn the Bachelor of Science degree.

Courses are offered in Driver and Safety Education, technical and industrial education leading to teacher certification.

CURRICULUM FOR THE INDUSTRIAL TECHNOLOGY MAJOR

Industrial Technology is a field of study which draws upon the principles of management, science, and the technology of industry. These principles are applied to the development of ideas and the solution of products and services, and to the management and supervision of the personnel involved.

The curriculum in Industrial Technology is designed to prepare personnel for positions in industry which require technical competency, managerial ability, and a broad liberal background. More specifically, the curriculum leads to a Bachelor of Science in Industrial Technology with a concentration in one of the following technology areas: Construction, Electronics and Printing.

The construction option is designed to meet the needs of students who wish to acquire principles of small commercial building construction which will enable them to obtain positions as construction supervisors, materials salesmen, contractors, and building inspectors. The electronics option is designed to prepare individuals for positions as electronics engineering aides, industrial electronics technicians and communication technologists. Students pursuing the Printing option may secure positions as plant managers, foremen, supervisors and salesmen within the printing industry.

The courses required for a major in Industrial Technology are listed below:

CONSTRUCTION CONCENTRATION

IAT 111	Woodworking Tech.	3
IAT 102	Residential Const. Mthd and Materials	3
IAT 212	Masonry Const.	3
IAT 231	Electricity	3
IAT 321	Const. Drawing I	3
IAT 322	Const. Drawing II	3
IAT 330	Concrete Tech.	3
IAT 412	Estimating	3
IAT 421	Modern Building Tech.	3
IAT 304	Elect. Wiring I	3
IAT 305	Elect. Wiring II	3
		33

PRINTING CONCENTRATION

IAT 141	Introduction to Printing	3
IAT 142	Relief Presswork	3
IAT 201	Linotype Operation	3
IAT 202	Makeup and Imposition	3
IAT 301	Offset Fundamentals	3
IAT 302	Cost Finding, Estimating and Bindery Operation	3
IAT 401	Production	6
IAT 402	Production	6
		30

ELECTRICAL CONCENTRATION

IAT 231	Electricity	3
IAT 232	Basic Electricity	3
IAT 304	Elect. Wiring I	3
IAT 305	Elect. Wiring II	3
IAT 332	Electronics Comm.	3
IAT 432	Industrial Wiring	3
IAT 102	Resid. Const. Mt.	3
IAT 321	Const. Drawing I	3
IAT 322	Const. Drawing II	3
IAT 412	Estimating	3
		30

SUGGESTED ELECTIVES

IAT 314	Industrial Prospective Management	3
AE 312	Working Drawings	3
IAT 331	Electronics Communication	3
AE 441	Building Equipment	3
IAT 413	Foremanship Training by Conference Method	3
IAT 432	Industrial Wiring	3
DSE 400	Driver Education Traffic Safety	3
DSE 412	Advance Problems in Driver and Traffic Safety	3
		24

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
MATH 111, 112	4	3
IAT 101, 102	3	3
MAJ TECH OPT	3	3
IAT 141	2	
BA 101		1
PE or AFROTC	1	1
	16	14

SOPHOMORE YEAR	Credit Hours Fall	Spring
SCI 121, 122	3	3
HIST 201, 202	3	3
ART 133	2	
ENG 211, 212	3	3
IAT 231; ACCT 211	3	4
HLTH 151; ECON 211	2	3
PE or AFROTC	1	1
	17	17

JUNIOR YEAR	Credit Hours Fall	Spring
IAT 311; ECON 301	3	3
*IAT 343; THEA 120	3	2
Electives (300-400)	3	3
IAT 321-22	3	3
*IAT 304-05	3	3
MAJ TECH OPT (300-400)	3	3
	18	17

SENIOR YEAR	Credit Hours Fall	Spring
BA 323, 324	3	3
*IAT 414, 412	3	3
*IAT 450; PHIL 323	2	2
ENGR 400	1	
Electives (300-400)	3	3
IAT 413		3
	12	14

Summer—IAT 374 Industrial Internship (9)
*Note part of Printing Concentration

Total Semester Hours Required: 134

INDUSTRIAL ARTS EDUCATION OPTION

Samuel Word, Coordinator

The Industrial Arts Curriculum is organized to offer experiences that will prepare young men and women as teachers of Industrial Arts in junior and senior high schools, and to provide experiences for all students who wish to develop an appreciation for and an understanding of the technological society in which they live.

Students in Industrial Arts Education must meet all requirements of the University with regards to its Teacher Education Program. Such requirements are listed under the School or Education as "General Information on the Teacher Education Program."

Requirements for Certification in Industrial Arts Education

The student must complete a core of major courses selected from the areas listed below:

AREA I

Drafting—6 semester hours
IAT 101—Graphic Communication I (3)
IAT 102—Graphic Communication II (3)

AREA II
Electricity—Electronics—6 semester hours
IAT 231—Electricity(3)
IAT 232—Basic Electronics I (3)

AREA III
Graphic Arts— 6 semester hours
IAT 151—Introduction to Printing (3)
IAT 142—Platen Presswork (3)

AREA IV
Manufacturing and Construction Industries—12 semester hrs.
(Woods) IAT 111—Woodworking Technology (2)
IA 312—Machine Woodworking (3)
(Crafts) IAT 353—General Crafts (2)
(Metals) IAT 121—General Metals (2)
IAT 324—Machine Tools Technology (3)

AREA V
Power 4 semester hrs.
IAT 361, 62—Power Technology (2,2)

In addition to the above 33 semester hours of general industrial arts requirements, 6 hours of Industrial Arts Education electives are also required. These electives should be used to secure single subject endorsements in various areas of industrial arts. Single subject endorsements may be obtained in any one of the following areas by completion of the hours indicated below:

Drafting	9 semester hours
Electricity- Electronics	9 semester hours
Graphic Arts	6 semester hours
Metals	9 semester hours
Woods	6 semester hours
Plastics	3 semester hours

CURRICULUM FOR THE INDUSTRIAL ARTS EDUCATION OPTION

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3	ENG 211, 212	3	3
MATH 111, 112	4	3	HIST 201, 202	3	3
IAT 101, 102	3	3	SCI 121, 122	3	3
*IAT 111, 121	3	3	ED 201; PSY 242	3	3
*IAT 151, 141	3	2	IAT 231, 232	3	3
ART 133		2	PE or AFRTC	1	1
PE or AFROTC	1	1	MUS 131 or HLTH 120		2
	—	—	HLTH 151	2	
	17	17		—	—
				18	18

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
ED 301; PSY 312	3	3	ED 387; IED 371	3	3
IAT 321, 312	3	3	IAT 343; ED 491	3	3
IAT 361, 362	3	3	IAT 450, 472	2	9
IAT 316, 413	3	3	ENG 400	1	
IAT 353; IA 141	3	3	Electives (300-400)	4	
ED 465; PHIL 323	3	2	SOC SCI ELECT	3	
	18	17		16	15

*These courses need not be taken in the order listed.

Total Semester Hours Required: 136

CURRICULUM FOR THE TECHNICAL AERONAUTICS MAJOR

CECIL M. RYAN, Coordinator

The Technical Aeronautics Curriculum is an academically oriented program of study directed toward training for gainful occupations in general aviation, aerospace industries, airplane manufacturing corporations, or private aeronautical service enterprises. The wide background provided through this curriculum enables a graduate to qualify for positions as support personnel working directly with engineers on a technical level. (Because of a policy of allowing academic credit for graduates of approved armed services schools or those holding current F.A.A. licenses in specified areas, this program should be especially attractive for those active or ex-service personnel who meet college entrance requirements and who desire to further their training toward a B.S. degree.)

CURRICULUM IN TECHNICAL AERONAUTICS

FRESHMAN YEAR	Credit Hours Fall	Spring	SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3	ENG 211, 212	3	3
IAT 101, 102	3	3	IAT 221, 222	3	3
IAT 131, 132	3	3	SCI 121, 122	3	3
IAT 134, 135	3	3	HIST 201, 202	3	3
MATH 111, 112	4	3	HLTH 151; IAT 141	2	2
PE or AFROTC	1	1	ART 133; IAT 370	2	3
	17	16	PE 20's thru 50's or AS	1	1
				17	18

JUNIOR YEAR	Credit Hours Fall	Spring	SENIOR YEAR	Credit Hours Fall	Spring
IAT 341, 342	3	3	IAT 441, 442	3	3
IAT 371, 372	3	3	IAT 451-73	3	3
IAT 381, 382	3	3	IAT 450; SOC SCI	2	3
IAT 324		3	Electives (300-400)	3	3
CS 193	3		ACCT 211; Electives (300-400)	4	6
BA 323	3		ENGR 400	1	
IAT 373; BA 335	3	3		16	18
	18	15			

Total Semester Hours Required: 135
Total Semester Hours Required for a Minor: 18
Consisting of IAT 135, 370, 371, 381, 382, 451

CURRICULUM FOR THE TRANSPORTATION SERVICES AND TECHNOLOGY MAJOR

WILLIAM E. RICHISON (Coordinator)

The Transportation Services and Technology Curriculum offers education designed for the rapidly growing transportation industry. It is envisioned as an interdisciplinary program designed to prepare students for positions in the areas of Transportation, Travel, and Tourism. Upon successful completion of this curriculum, the student posesses the following competencies: (1) Have a broad overview of transportation and the various industries that are allied with it. (2) Be able to understand and cope with the problems of a large complex organization designed to serve the needs of individuals and groups of travellers as well as the handling of freight and cargo from aircraft, railroads, trucks, pipelines, seaports, and barges and inland waterways. (3) Be familiar with problems relative to leisure travel and tourism. (4) Be able to perform supervisory, administrative and technical tasks relative to the organization, management and personnel for Transportation, Travel and Tourism. (5) Be technically competent to entrance levels in the transportation services.

Courses required for a major in Transportation Services and Technology are listed below:

IAT 141 Orientation	2
IAT 314 Industrial and Production Management	2
IAT 210 Fundamentals of TST	3
IAT 306 Transportation Rates and Economics	3
IAT 307 Transportation Managing and Marketing	3
IAT 317 Physical Distribution and Transportation Management	3
IAT 318 Transportation Terminal Management	3
IAT 377 Internship TST	6
IAT 415 Tourism Development	3
IAT 416 Problems in Transportation	3
TST Electives	6
Total	38

CURRICULUM FOR TRANSPORTATION SERVICES AND TECHNOLOGY

FRESHMAN YEAR	Credit Hours Fall	Spring
ENG 101, 102	3	3
MATH 111, 112	4	3
SCI 121, 122	3	3
HLTH 151; ART 133	2	2
PE or AFROTC	1	1
IAT 101; CS 193	3	3
	16	15

SOPHOMORE YEAR	Credit Hours Fall	Spring
ENG 211, 212	3	3
ACCT 211; GEO 271	4	3
IAT 210; THEA 120	3	2
ECON 211, 212	3	3
SPCH 220		3
PE or AFROTC	1	1
HIST 201-02	3	3
	17	18

JUNIOR YEAR	Credit Hours Fall	Spring
IAT 306, 307	3	3
IAT 317, 318	3	3
IAT 311, 314	3	3
PHIL 301 or 323	2	
IAT 370		3
BA 323; ENG 310	3	2
IAT 372	3	
	17	14

SENIOR YEAR	Credit Hours Fall	Spring
IAT Electives (300-400)	3	3
IAT 415, 416	3	3
IAT 450	2	
SOC 461, Electives	3	6
Elective (300-400)	3	3
ENGR 400	1	
	15	15

IAT 377 Internship in TST (9 hr. cr.) must be taken the summer following completion of Junior Year.

Total Semester Hours Required: 136

Total Semester Hours Required for a Minor: 18

PROGRAM FOR CERTIFICATION IN DRIVER EDUCATION

Students may meet certification requirements in Driver Education by completing the following courses:

DSE 400—Driver Education and Traffic Safety	3
DSE 410—Teaching Methods in Driver and Traffic Safety Ed	3
DSE 412—Advanced Problems in Driver and Traffic Safety ED	3
DSE 420—General Safety Education	3
HED 302—First Aid	2
Total	14

PROGRAM FOR CERTIFICATION IN INDUSTRIAL EDUCATION

Students may meet certification requirements in Industrial Education by successfully completing the following courses:

IAT 316—Foundation of Industrial Education	2
IAT 343—Shop Organization and Mangement	2
IAT 344—Materials and Methods for Teachers of Shops and Related Subjects	2
IAT 375—Methods of Teaching Education	3
IAT 413—Foremanship Training by the Conference Method	2
IAT 414—Job Analysis	3
IAT 431—Curriculum Planning in Industrial Education	3
IAT 435—Problems in Trade and Industrial Teaching	3
IAT 436—Problems in Trade and Industrial Teaching	3
Total	23

CURRICULUM FOR THE PROGRAM IN FIRE SCIENCE

FIRST YEAR

First Semester		Second Semester	
ENG 101	3	ENG 102	3
MATH 111	4	PSY 201	3
SOC 211	3	CHM 121	4
F.S. 210	2	F.S. 211	3
A.E. 270	3	F.S. 212	3
	—	SPCH 230	3
	15		—
			19

SECOND YEAR

First Semester		Second Semester	
PHYS 211	4	F.S. 242	2
S.E. 421	2	F.S. 243	3
F.S. 220	3	F.S. 221	2
F.S. 231	3	F.S. 232	3
F.S. 240	3	F.S. 244	2
	—	F.S. 260	3
	15	F.S. 261	3
			—
			18

Total Credit Hours: 67

COURSE OFFERINGS

IAT 101. Graphic Communication I. (1-5-3) Instruction in the use of drafting tools; lettering, sketching, geometrical construction, multi-view projection, auxiliary views and revolutions, sectioning and dimensioning as applied to industrial graphic. One hour lecture and five hours laboratory.

IAT 102. Graphic Communication II. (1-5-3) A study of pictorial drawings, thread design and working drawing, intersection experience in drafting practices and theory. One hour lecture and five hours laboratory.

IAT 103. Residential Construction Methods and Materials. (1-5-3) Tools and materials of frame construction. Laying out and sketching of a building. Construction Methods. One hour lecture and five hours of laboratory. (Formerly IAT 102)

IAT 111. Woodworking Technology. (3) (1-4-3) An introduction to the tools materials, processes and personnel used in the woodworking industry. One hour lecture and four hours laboratory.

IAT 121. General Metalworking. (3) (1-4-3) An introduction to the tools, materials, processes, and personnel of the metalworking industry. One hour lecture and four hours laboratory.

IAT 131. Aerospace Basic Science. (3-0-3) This course includes a basic study of the physical properties of air, elements of aerodynamics, airfoil design and reactions in accordance with Newton's laws and Bernoulli's principles, as applied to bodies in motion. Also blueprint reading standards, materials and hardware. Aircraft structural design and structural frame requirements for fuselage and wing components including wing loading and stress analysis. Three hours lecture. (Formerly ARO 101)

IAT 132. Power Plants I. (1-5-3) Energy conversion principles and practices. Thermodynamic working fluids and pressure forcetorgue conversion processes. Four-stroke cycle and two stroke cycle engine principles and design, carburetion and induction systems design and requirements. Battery and ignition system design, precombustion activities and the combustion process, cooling and lubrication systems. One hour lecture and five hours laboratory. (Formerly ARO 102)

IAT 134. Model Building. (3-0-3) Deals with nomenclature, structure, design, and the building of various aircraft models. Three hours lecture. (Formerly ARO 111)

IAT 135. Aircraft Familiarization. (3-0-3) A survey course designed to acquaint the student with the basic areas of concentration within the field of avaiation. Three hours lecture. (Formerly ARO 112)

IAT 141. Orientation. (2-0-2) Acquaints the student with the departmental requirements, makes him aware of our present-day industrial and technological demand, with some of the implications for the future, and his role in our modern society. (Formerly IED 101)

IAT 142. Relief Presswork. (1-5-3) Skills are developed in the care and maintenance, registration, making-ready, and feeding of hand-fed platen and automatic cyclinder presses. Prerequisite: IAT 141. One hour lecture and five hours laboratory.

IAT 151. Introduction to Printing. (1-5-3) An introduction to the tools, materials, processes, and personnel of the Printing Industry. One hour lecture and four hours laboratory.

IAT 201. Linotype Operation. (1-5-3) The development of manipulative skills on the linotype keyboard and the performance of first and second echelon maintenance. One hour lecture and five hours laboratory.

IAT 202. Make-up and Imposition. (1-5-3) Emphasis on the development of skills in the make-up and imposition of books, newspapers, pamphlets, brochures and broadsides, and reproduction proofs. One hour lecture and five hours laboratory.

IAT 210. Fundamentals of Transportation, Travel and Tourism. (3-0-3) An introductory study of the various modes of transportation and their relationships to travel and leisure activities. Study of the growth, use, progress and need for rapid transit systems. (Formerly TST 201)

IAT 212. Masonry Construction. (1-5-3) Tools and materials, block construction, brick veneer construction, curtain wall, screen walls, different types of mortar, adhesive for masonry walls, Fireplace construction and design. One hour lecture and five hours laboratory.

IAT 221. Airframe Structures I. (1-5-3) Basic hydraulic and pneumatic systems. Compressibility and thermal expansion of fluids. Fluiddity and viscosity effects. Viscosity index graphs. Transmission of pressure in liquids and demonstration of the principles of Pascal's law that makes possible the transmission of force through liquids, problems and solutions in mechanical advantages and looses. Basic hydraulic system design and essential unit functions, plubming for aerospace systems, pressure and mechanical instruments, Gyro instruments. One hour lecture and five hours laboratory. (Formerly ARO 201)

IAT 222. Power Plants II. (1-5-3) Engine starting systems and essential units design and function. Performance and power calculation. Maintenance techniques and acceptable tune-up procedures. Output power and torque measurement. Engine overhaul practices and procedures, disassembly cleaning, visual and micrometric procedures, inspection of engine parts, magnaflux inspection, and non-destructive testing. Engine control systems. Engine installation; test and final run-up and final inspection. Prerequisite: (IAT 131, 132)

IAT 231. Electricity. (1-5-3) An introduction to the tools, materials, processes, and personnel of the electronics industry with emphasis on basic circuits, magentism, and electrical principles. Two hours lecture and two hours laboratory.

IAT 232. Basic Electronics. (1-5-3) A study of basic electronics principles and acceptable practices in the utilization of electronics devices, generation, transmission, and use of electric power. One hour lecture and five hours in laboratory.

IAT 301. Offset Fundamentals. (1-5-3) Principles and practices of the offset processes are studied. Care, maintenance and operational skills of the offset presses are developed. Techniques of copy preparation, camera work stripping, opaquing, line and halftone negatives and plate-making are developed. One hour lecture and five hours laboratory.

IAT 302. Cost Finding, Estimating and Bindery Operation. (1-5-3) Copy fitting and estimating the cost of producing all types of printed matter. Standard sized, weights and proper uses of cover cards, book and bond papers are studied. The development of skills in the operation of the power cutter, folder, stitcher and perforator. One hour lecture and five hours laboratory.

IAT 304. Electrical Wiring I. (2-4-3) Practice in residential wiring, calculating and determining the size of service and circuits, methods and procedures in wiring. This course includes elementary lighting theory, fixture selection and maintenance, rules and regulations as prescribed by the current National Electrical Code. Prerequisite: IAT 231. Two hour lecture and four hours laboratory.

IAT 305. Electrical Wiring II. (2-4-3) A continuation of IAT 304 with emphasis on commercial and industrial wiring. Prerequisite: IAT 304. Two hour lecture and four hours laboratory.

IAT 306. Transporation Rates and Economics. (3-0-3) A study of the basic economic factors involved in transportation; scope of transport economics, transport pricing, rates, laws, rules and regulatory agencies that govern transportation.

IAT 307. Transportation Managing and Marketing. (3-0-3) A study of basic principles and existing practices used in managing and marketing transportation materials. (Formerly TST 302)

IAT 311. Industrial Safety. (3-0-3) Development of the industrial safety movement; psychology in accident prevention; appraisal of accident cost factors, severity and frequency; job analysis and corrective measures; plant inspection and preventive maintenance; storage and handling of materials; fire prevention; education and training of employees.

IAT 312. Machine Woodworking. (1-5-3) Emphasis is placed upon the proper maintenance and operation of such power woodworking machines as circular saws, bandsaws, planers, jointers and lathes. Projects are constructed that involve the use of these machines. Prerequisite: IAT 111. One hour lecture and five hours laboratory.

IAT 314. Industrial and Production Management. (3-0-3) A general survey of the problems in organizing, planning and controlling the use of men, money, materials and machines for production and contruction. This course also provides the theoretical foundations for production management as well as the applications of decision-making techniques to the production problems of industry.

IAT 316. Foundation of Industrial Education. (3-0-3) History and development of Industrial Education; social and economic reasons for present educational movements; types of modern industrial schools and courses; apprenticeship system and training of workers in modern industry. (Formerly IED 111)

IAT 317. Physical Distribution and Transportation Management. (3-0-3) A study of the management and organization of physical distribution transportation, warehousing, inventory control, material handling, industrial packaging, order processing, and location analysis. (Formerly TST 311)

IAT 318. Transportation Terminal Management. (3-0-3) Study methods used for receiving and shipping, filing systems, bill of laden and enroute documentation, special filing systems for receiving and instant rerouting of intransit materials. General office equipment records.

Communication systems, pick-up delivery, and storage space allocation. Employment and personnel problems. Labor unions, seniority rights and promotions. (Formerly TST 312)

IAT 321. Construction Drawing I. (1-5-3) Study of modern house and small commercial building construction methods, drawing details of carpentry and masonry construction. Modern materials, plots. Layout contour maps, preliminary sketches, architectural symbols. Prerequisite: IAT 102. One hour lecture and five hours laboratory.

IAT 322. Construction Drawing II. (1-5-3) Basic house design, site consideration, modular aspects, drawing a complete set of plans. Two point perspective; designing small commercial buildings, steel framing drawings, concrete structural drawings. Prerequisite: IAT 321. One hour lecture and five hours laboratory.

IAT 323. Sheetmetal Working. (1-5-3) Introduction to sheetmetal working, Developing pattern, laying-out cutting, bending, framing, forming, making seams, wiring edges, turning a burr, crimpting, riveting, spot welding, and soldering sheetmetal. Planning and making projects and developing subject matter as taught on the junior and senior high levels. One hour lecture and five hours laboratory.

IAT 324. Machine and Tool Technology. (1-5-3) A study of the various methods of changing the shape of metals with machine tools. Instruction will consist of basic manufacturing processes and techniques with emphasis on the engine lathe, drill press, milling machine, shaper, and grinder. One hour lecture and five hours laboratory. (Formerly IAT 321)

IAT 325. Personal Travel Planning. (3-0-3) Evaluation of existing systems used in daily commuter travel; study of scheduling problems, vehicle required speed, safety factors and cost analysis. Customer compliants, terminal and transfer travel, airplane and automobile rental services. Physical and legal practices and requirements for leisure and group travel. (Formerly TST 321)

IAT 326. Articulation, Communication and Sales. (3-0-3) Study of various modes and methods used in transportation and commuter travel operations, to determine the physical probability and economic feasibility of combining all operations to improve articulation of materials and commuter travel from one system to another. Finding solutions to the inherent problems of communications and selling these services to the public. Three lecture periods each week. Prerequisite: IAT 101. (Formerly TST 322)

IAT 330. Concrete Technology. (2-2-3) Designs of footing and foundations, forming and handling concrete, reinforced concrete construction, insulating and water proofing, etc. Two hours lecture and two hours laboratory.

IAT 331. Electronics Communication I. (2-4-3) This course deals with testing, repair, service and construction of AC devices, radio receivers and other electronic equipment used in communication. Two hours lecture and 4 hours laboratory.

IAT 332. Electronics Communication II. (2-4-3) A continuation of IT 331 with emphasis on the testing, repair, service and construction of A.C. devices, radio receivers and other electronic equipment used in communication. Prerequisite: IAT 331. Two hours lecture and four hours laboratory.

IAT 341. Airframe Structures II. (1-5-3) Methods and materials of fabrication of aerospace structures, use of MIL and AN standards; FAA technical standard order (TSO), type certificates (TC), supplemental type certificates (STC). Classification of repairs, and alternations. Reports, forms, drawings and recordation requirements. Repair station requirements and practices. Prerequisite: IAT 221. One hour lecture and five hours laboratory. (Formerly ARO 301)

IAT 342. Thrust Conversion. (1-5-3) A study of fundamental engineering designs and stress analysis of aircraft propellers. Design principles and operational characteristics of fixed-pitch, variable-pitch, and constant-speed propellers. Propeller governors and r.p.m. control devices; also fuels and lubricants for aircraft and aerospace vehicles. Prerequisite: IAT 222. One hour lecture five hours laboratory. (Formerly ARO 302)

IAT 343. Shop Organization and Management. (3-0-3) Securing equipment, making inventories and arranging for proper storage of materials, supplies and tools. Typical shop layouts, arrangements for tool rooms, stock rooms and storage facilities; keeping records and accounts. Personnel management of students and the organization of students' participation in shop management and safety. (Formerly IED 331)

IAT 344. Materials and Methods for Shops and Related Subjects for Teachers. (2-0-2) Detailed study, combined with actual operation of each of the several standard types of projects; lesson planning for teaching specific units involving audio-visual aids; maintenance, and repair of projection equipment. The design and construction of static and dynamic models, selected for use in specific teaching units. (Formerly IED 332)

IAT 352. Plastics Technology. (1-5-3) A study of the kinds and uses of plastics and an application of the fundamental principles and techniques of design and construction of plastic projects as used on the secondary school level. One hour lecture and five hours laboratory.

IAT 353. General Craft. (1-4-3) An introduction to the tools, materials, processes, and personnel of the general crafts industry. Instruction consists of creative craft activities and work in wood, metal, leather, and other suitable materials. One hour lecture and four hours laboratory.

IAT 361. Power Technology. (2-2-3) A study of methods of generating, transmitting, controlling and applying power and energy; and the function of power systems in our present-day society. Two hour lecture and two hour laboratory.

IAT 362. Power Technology. (2-2-3) Continuation of 361 with emphasis on the operation, design maintenance and repair of power engines and machines. Two hour lecture and two hour laboratory.

IAT 370. Meteorology. General effects of weather phenomena, special study of its relation to aviation. Three hours lecture. (Formerly ARO 310)

IAT 371. Communications. (3-0-3) The development of methods of communication, radio navigation, morse code, air traffic control, etc. Three hours lecture. (Formerly ARO 311)

IAT 372. Federal Aviation Regulations. (3-0-3) Federal, state and local safety regulations with their application to aviation. Three hours lecture. (Formerly ARO 312)

IAT 373. Link Operations. (1-4-3) The principles involved in the GAT-1 Simulator, its operation and maintenance. One hour lecture and four hours laboratory. (Formerly ARO 371)

IAT 374. Industrial Internship. (9) A summer cooperative venture between the university and industrial enterprises which provides actual on-the-job experiences for industrial technology majors in the Department. All majors are required to take Industrial Internship at the end of their sophomore and junior years. The Head of the Department of Ind. Arts & Tech. must approve all internships before students are permitted to enroll. Internship may be conducted in a commercial establishment or at Tennessee State University. Efforts will be made to arrange with contracting agencies who cooperate in the Industrial Internship program to assist in financing subsistence needs of students. However, a student enrolled in Industrial Technology should arrange to finance himself during his internship. Forty laboratory hours each week. (Formerly IED 374)

IAT 375. Methods of Teaching Industrial Education. (3-0-3) Lesson planning, techniques of the demonstration, plans for related instruction, and methods of testing studied. Prerequisite: Admittance to the Teacher Education Program. (Formerly IED 371)

IAT 377. Internship in TST. (9) (Summer I & II) Actual experience from on the job training in Transportation and Travel Systems. (Formerly TST 374)

IAT 381. Theory of Flight and Engines. (3-0-3) The laws of aerodynamics and nature as applied to avaiation; also the principles, familiarization and operation of the internal combustion and jet engines. Three hours lecture. (Formerly ARO 321)

IAT 382. Navigation. (3-0-3) The principles involved in scientifically going from one place to another by means of air travel. Practical experience is offered in this course. Three hours lecture. (Formerly ARO 322)

ENGR 400. Senior Seminar. (1-0-1) (See course descriptions for senior seminar)

IAT 401-402. Production. (0-6-3), (0-6-3) These courses are designed to round out the student's training by concentrated application of principles and techniques gained in previous courses. Twelve hours laboratory.

IAT. 403 General Shop. (1-2-3) A study of general concepts, purpose, organization and administration of the general shop. Instruction is offered in a variety of industrial arts activities. One hour lecture and two hours laboratory. (Formerly IAT 401)

IAT 405. Leisure Travel. (3-0-3) A study of factors related to the sociology and marketing of leisure travel. Exploration of existing parks and recreational facilities, local and national.

IAT 406. Tourism Services. (3-0-3) A study of services to tourist centers, hotel, motel, convention and trade show facilities, and other enterprises which might attract people. (Formerly TST 402)

IAT 412. Estimating. (2-2-3) Specification writing, materials take off. Labor and subcontractors. Calculating cost of materials and labor, for residential and commercial structure. Job planning, requisition of materials, building permits, codes and restructions.

IAT 413. Foremanship Training by the Conference Method. (3-0-3) A study of the use of the conference as an instructional device; special methods, techniques, and procedures to be used in foreman training, duties and responsibilities of the typical industrial foreman. How to follow up foreman conferences by means of foremen's clubs and plant educational programs. (Formerly IED 411)

IAT 414. Job Analysis. (3-0-3) A study of the techniques of defining, identifying, classifying, organizing and expressing teachable elements of occupations for instructional purposes. Practice in analyzing trade jobs for production, auxiliary and related technical content. (Formerly IED 412)

IAT 415. Tourism Development. (3-0-3) A study of ways and techniques of promoting and developing the tourist industry; leisure industry facilities. (Formerly TST 411)

IAT 416. Problems in Transportation. (3-0-3) Problem study of selected areas in transporation, travel and tourism to meet the needs of students having a professional interest in the field. (Formerly TST 412)

IAT 421. Modern Building Technology. (2-2-3) Low cost housing modular construction, precast concrete, tilt up erection and assemble load, and strength of materials. How to read span tables, load tables, glued laminated wood beams. Steel framed houses. One hour lecture and five hours laboratory.

IAT 423. Welding and Heat Treating. (1-5-3) An introduction to arc, tig and acetylene welding. Fundamentals foundry practice and heat treatment of metals. One hour lecture and five hours laboratory.

IAT 431. Curriculum Planning in Industrial Education. (3-0-3) Arranging course materials in trade subjects; follow-up results of job analysis; preparing check sheets and individual job sheets in both trade and related subjects. Prerequisite: IAT 414. (Fromerly IED 431)

IAT 432. Industrial Wiring. (2-4-3) A course to acquaint the students with electronic application in industry, electronics control of machine operation and product grading, counting,

inspection and other electronically operated electro-mechanical innovations are studied. Two hours lecture and four hours laboratory.

IAT 435-436. Problems in Trade and Industrial Teaching. (3-0-3), (3-0-3) Individual or group work on assigned or chosen problems involving the preparation, use and evaluation of instructional material for use in vocational industrial classes. Research involving the compilation and study of student records, employment placement, job progress, earnings, wage scale and similar items may also be carried out. Three hour lecture periods each week. (Formerly IED 435, 436)

IAT 441. Aircraft Electrical Systems. (1-5-3) This course covers the basic fundamentals of aircraft electricity and deals with the design principles and functional operation of aircraft and aerospace electrical accessories and appliances, and includes basic theories and simulated functional operation of direct current systems and 400 cycle A.C. systems as used in aerospace vehicles. Prerequisites: IAT 131, IAT 222. One hour lecture and five hours laboratory. (Formerly ARO 401)

IAT 442. Avionics. (1-5-3) This course covers the principles of electronics and electronics circuits elements as used in aircraft and aerospace vehicles for communication, naviagation, and direction finding equipment. Prerequisite IAT 441. One hour lecture and five hours laboratory. (Formerly ARO 402)

IAT 450. Senior Project. (0-4-2) Each senior is required to select and execute a project under the supervision of his major advisor. It may involve the designing and making of the project complete with drawings, pictures, specification and detailed data involved in its construction; or a research and compilation of a subject within the field of the student's interest. Four hours laboratory (Formerly IED 450L)

IAT 451. Flight Training I. (1-5-3) How to fly with actual flight experience and instruction. Ten clock hours of dual flight instruction. One hour lecture and five hours laboratory. (Formerly ARO 411)

IAT 452. Aeronautics Workshop. (3-0-3) Designed primarily for in-service teachers whose objectives are to enrich their curriculum by weaving air age materials into their specific subject area. Development of classroom procedures. Three hours lecture. (Formerly ARO 412)

IAT 472. Student Teaching. (9) Provides an opportunity for each prospective industrial education teacher enrolled at this institution to engage in the actual observation and teaching of industrial education classes in the secondary schools in this state. Student teacher schedules should be arranged to enable the student to devote full time to student teaching. (Formerly IED 472)

IAT 473. Flight Training II. (1-5-3) Continuation of IAT 451. Ten dual hrs.

DSE 400. Driver Education and Traffic Safety. (2-2-3) Designed to teach the beginning driver to drive according to standards of the American Automobile Association. Two hours lecture and two hours laboratory.

DSE 410. Teaching Methods in Driver and Traffic Safety Education. (1-4-5) Designed to prepare teachers, administrators, and supervisors of driver education. It involves practice in both classroom and behind-the-wheel phases of the program. Prerequisite: (Open only to licensed, experienced drivers approved by the instructor). One hour lecture and four hours laboratory.

DSE 412. Advanced Problems in Driver and Traffic Safety Education. (3-0-3) Presentation and consideration of safety and traffic education research, issues and teaching problems. Relationships within school, community and related agencies.

DSE 420. General Safety Education. (3-0-3) A study of the general program of safety education in public schools. Covers safety problems in school, recreation, industry, home, and other public areas.

FS 210. Introduction to Fire Control. (2) Identification and definition of the fire problem and what different organizations are doing to control it. A study of the history and philosophy of fire protection and prevention and discussion of different methods of educating the public in fire prevention. Each student will design and develop his own fire prevention progress.

FS 211. Principles of Fire Protection Chemistry. (3) Relationships of fire to the physical world through chemistry and physics. Develops understanding of heat transfer and its effects on combustibles. Shows how modern extinguishing agents chemically extinguish fires. Must be taken before any other Fire Science courses. (Formerly UTN course Fire Science 2110.)

FS 212. Basic Hydraulics. (3) Basic fluid mechanics. Preparation for more advanced courses in specialized hydraulics, such as extinguishing system design and fire ground hydraulics. Prerequisite: Math 111 or 150; Fire Science 211; (Formerly UTN course Fire Science 2120.)

FS 220. Inspection Practices and Procedures for Fire Safety. (3) Proper inspection practices and procedures. Fixed and portable fire extinguishers; fire detection and alarm systems; application of building and fire codes to fire inspections. Each student will conduct his own fire inspection. (Formerly UTN course Fire Science 2200.)

FS 221. Fire Protection Evaluation. (2) Evaluation of public fire defenses in municipality; organization, physical resources, etc. Actual evaluations will be done by students. Prereq: Fire Science 220. (Formerly UTN course Fire Science 2210.)

FS 231. Building Construction and Fire Codes. (3) Building construction as related to fire protection, fire resistance ratings of construction of building materials. How to read codes and standards properly. Prereq: Civil Engineering 270. (Formerly UTN course Fire Science 2310.)

FS 232. Industrial Fire Hazards. (3) Fire hazards associated with industrial operations and processes, minimization of industrial fire hazards, and an introduction to high property risk management. Prereq: Fire Science 211. (Formerly UTN course Fire Science 2320.)

FS 240. Fire Fighting Hydraulics. (3) Advanced level hydraulics in the fire fighting field. Prereq: all of core program. Coreq: Fire Science 271. (Formerly UTN course Fire Science 2400.)

FS 242. Municipal Fire Administration. (2) Systems approach to planning public fire safety. Fire Department organization, administration and operation. (Formerly UTN course Fire Science 2420.)

FS 243. Fire Fighting Strategy and Tactics. (3) Methods and procedures of size-up and condition determination. Aspects of company operations and performance levels. Prefire planning, assigning duties and fire ground operations. Prereq: Fire Science 242. (Formerly UTN courses Fire Science 2410 and 2430.)

FS 244. Legal Aspects of Fire Science. (2) Legal rights and responsibilities of firemen, liabilities of firemen, mutual aid and assistance of fire departments, jurisdictional domain, organizational procedure. Prereq: all fire science courses. (Formerly UTN course Fire Science 2440.)

FS 250. Fire Resistance Test Methods and Procedures. (2) In depth study of fire resistance testing as done by nationally recognized testing laboratories such as the American Society of Testing Materials and Underwriter's Laboratories. Applying the results of these tests to do designing proper fire protection systems. Prereq: All fire science courses. (Formerly Fire Science 2500.)

FS 251. Structural Fire Protection Design. (2) Designing structural systems to meet fire code requirements. Protecting structural members and proper building techniques to insure hourly rated structural systems against fire. Prereq: all of fire science core program, Graphics 110, Fire Science 250. (Formerly UTN course Fire Science 2510.)

FS 252. Sprinkler and Standpipe Design. (3) Designing sprinkler and standpipe systems. Selection of systems to fit building needs and adjusting present systems to meet needed changes. Prereq: All of fire science core program, Graphics 110, Fire Science 251. (Formerly UTN course Fire Science 2520.)

FS 260. Fire Protection and Prevention Design Project. (3) Integration of concepts, ideas and fundamentals of fire protection and prevention involving research, analysis, and the development of fire protection and prevention projects. Prereq: permission of Fire Science advisor. Student will work in groups. (Formerly UTN course Fire Science 2600.)

THE SCHOOL OF NURSING

THE SCHOOL OF NURSING

Marion F. Gooding, Ph.D., R.N., Dean

The newly established School of Nursing was designed to prepare students from varied backgrounds to develop competencies at the technical level in the associate degree curriculum and to develop comptencies at the professional level in the baccalureate degree curriculum. The Continuing Education in Nursing Program, provides opportunities for enlarging the scope of nursing knowledge. In keeping with the mission and goals of Tennessee State University, the School of Nursing aims to provide an atmosphere conducive to quality education, promote the goals of higher education, meet the needs of the culturally diverse student, and to provide competent nursing practitioners to meet the health care needs of society.

ASSOCIATE DEGREE NURSING CURRICULUM

Purpose and Objectives

The School of Nursing offers an Associate of Science degree in nursing. This program is designed to prepare students from varied backgrounds to develop technical and intellectual competencies necessary for entry into nursing practice at a technical level.

Upon completion of the program, the graduate of the Associate of Science in Nursing degree:

1. Demonstrates respect for the dignity and worth of the individual.
2. Communicates effectively.
3. By using the nursing process, plans appropriate nursing measures for the day to day care of patients.
4. Performs nursing intervention with a competent level of skill.
5. Evaluates the individual's reaction to therapy.
6. Participates with other members of the health team in rendering care to individuals.
7. Demonstrates personal responsibility for legal and ethical implications of nursing practice.

Admission Requirements

The specific requirements for admission to the Associate of Science Degree Nursing Program are as follows:

1. File an application in the Admissions Office before April 1 of the admitting year. Students seeking readmission to the University must follow the established procedure and adhere to the above deadline. (Please note all applicants must take the ACT Test as a part of the admissions procedure to the University.)

2. The high school transcript and official college transcript of credit (if any earned) must be submitted to the Office of Admissions and Records. All applicants must have completed the following:
   a. One unit of high school chemistry or its equivalent with a grade of **C** or better.
   b. Two units of high school mathematics with a grade of **C** or better.
   c. Achievement of a cumulative grade point average of not less than 2.25 (college or high school).
3. Those students who meet the high school pre-requisites and demonstrate potential for full-time college work will be scheduled for a pre-nursing examination.
4. The final selection will be made as soon as all information is compiled.
5. Those students who are accepted into the nursing program must pay a $50.00 deposit by the date designated by the Office of Admissions and Records.

Students are admitted to nursing once a year in the Fall Semester. The number of students admitted each year is dependent on the size of the faculty, the availability of clinical facilities, and specific learning techniques to be utilized in the curriculum.

Admission with Advanced Standing

The policies and procedures regarding advanced standing through transfer of credits are available in the Office of the Dean, in the School of Nursing.

Associate-in-Science in Nursing Degree Requirements

Students seeking the Associate-in-Science Degree in Nursing must complete the curriculum as outlined below. Upon successful completion of the required program, the university awards an Associate of Science degree, and the graduate is eligible to take the State Board Test Pool Examination for licensure (R.N.).

CURRICULUM IN ASSOCIATE DEGREE NURSING

FRESHMAN YEAR

Courses	Credit Hours Fall	Spring
ZOOL 101	4	4
ENG 101, 102	3	3
PSY 201		3
MATH 108	1	
NURS 101, 102	6	7
	14	17

SUMMER SESSION (10 weeks)

	Credits
NURS 120	4
PSY 351	3
PSY 202	3
	10

SOPHOMORE YEAR

Courses	Credit Hours Fall	Spring
MICRO 250	4	
SOC 211	3	
NURS 201, 202	9	9
NURS 220		1
Elective		6
	16	16

Academic Policies for Continuation in the Program

To progress in the nursing sequence, a nursing student must achieve a minimum of **C** in each nursing course, received a satisfactory rating in the clinical evaluation (hospital practice), and maintain a cumulative grade point average of 2.0. Nursing courses may not be repeated without the recommendation of the Nursing Academic Standards Committee.

Graduation Requirements

Students must meet all requirements for graduation as set forth by Tennessee State University.

ASSOCIATE DEGREE NURSING
Course Offerings

Nursing 101. Fundamentals of Nursing. (6 credit hours) Introduction to the concept of man, environment, and health needs through out the life cycle. Basic skills related to maintenance of normal functioning is emphasized. Pre or co-requisite, Zoology 201.

Nursing 102. Nursing Care in Commonly Occuring Health Problems in Adult and Child I. (7 credit hours) Assessment, planning, and intervention in care of patients with conditions related to cardio-pulmonary, peripheral vascular, respiratory and renal malfunctioning. Includes growth and development, nutrition, psycho-social and cultural aspects. Pharmacology integrated. Pre or co-requisite, Zoology 202, Psychology 201.

Nursing 120. Nursing Care in Commonly Occuring Health Problems in Adult and Child II. (4 credit hours) Assessment, planning and intervention in care of patients with conditions related to reproductive-hormonal, musculosketletal and sensory deprivation health problems. Includes growth and development, nutrition, psycho-social and cultural aspects. Pharmacology integrated. Pre or co-requisite, Psychology 351, Psychology 202.

Mathematics 108. The Mathematics of Drugs and Solutions. (1 credit hour) The metric and Apothecaries' system of weights and measures, abbreviations, symbols, conversions. Calculations involved in preparing solutions from powdered drugs and tablets, dilutions of concentrated stock solutions, dosages from stock solutions.

Nursing 201. Family-Centered Approach with Long-Term Illness. (9 credit hours) Through application of the nursing process, the student learns to assist the individual with long-term illness, and his family, to cope with commonly occuring changes in health status which require a variety of skills, psychological support, prevention and rehabilitation, and health teaching. Includes Psychiatric Nursing. Pre or co-requisite Sociology 211.

Nursing 202. Family-Centered Approach to Acute and Short-Term Illness. (9 credit hours) Utilizing the nursing process, the students learn to assume increasing responsibility for self-directive judgements in patient situations which require depth of understanding of concepts and principles related to man and his adaptation to the environment during crisis. Includes Obstetrical Nursing. Pre or co-requisite, Microbiology 250.

Nursing 220. Nursing Seminar. (1 credit hour) Current issues and trends in the practice of nursing and the relationships with past events. This course includes legal aspects, nursing ethics, and those aspects of professional adjustments related to making the transition from student to graduate practitioner. Co-requisite with Nursing 202.

Nursing 200. Special Topics. (1-4) Student or faculty generated course. Scope of subject matter to be determined by students/instructor with approval of Dean.

BACCALAUREATE DEGREE NURSING PROGRAM

Purpose and Objectives

The purpose of the baccalaureate program in nursing is to prepare a generalist who can utilize knowledge and skills in an interdependent role with other health professionals, function as an independent, critical thinking professional, communicate effectively, discriminate among values, make relevant judgments and serve as a change agent in the shaping of values, morals, and practices of the nursing profession and society.

Upon completion of the bachelor of science degree program in nursing, the graduate will have acquired:

—Knowledge of the broad function the professional of nursing is expected to perform in society.

—Knowledge of the theories and practices of nursing.

—Competency in selecting, synthesizing, and applying relevant information from various disciplines to the practice of nursing.

—Competency in collaborating with other health care disciplines and consumers to improve health care.

—The ability to utilize the nursing process utilizing standards of nursing practice.

—The ability to evaluate current nursing and health care practices and initiate changes in those practices when appropriate.

—Knowledge, skills, and attitudes to serve as a foundation for graduate study in nursing.

Admission Requirements

There are two steps involved in the procedures for admission to the BS Nursing program. First the applicant must be admitted to Tennessee State University (see catalogue for requirements). Upon admission to the University, the student is permitted to take all required lower division courses, (freshman and sophomore levels). Nursing students must achieve a **C** or better in all required lower division courses, exclusive of electives.

When the student has completed the lower division requirements, a petition for admission to the upper division must be made to the Admissions Committee. The students will be notified in writing of their eligibility to began upper division nursing. The number of students admitted each year will be dependent on the program resources.

Registered nurses and/or graduates of diploma and associate degree nursing programs must also adhere to the above procedures. The University policies regarding transfer credit and credit by examination are published in the catalogue. After admission to the upper division graduates may petition to challenge up to 20 credits in the junior level courses. All baccalaureate nursing students must complete 25 hours in nursing courses at the University.

Requirements for the Bachelor of Science Degree in Nursing

All Tennessee State University graduates must meet the requirements for the Bachelor of Science degree as presented in the catalogue. The curriculum as outlined below includes the university and the nursing requirements.

FRESHMAN YEAR Courses	Credit Hours Fall	 Spring
ENG 101, 102	3	3
PSY 201, 310	3	3
CHM 121, 122	4	4
ZOOL 201, 202	4	4
*PHYS ED	1	1
	15	15

SUMMER SESSION	
PSY 242	3
ECO 211	3
MATH 111	4
	10

JUNIOR YEAR Courses	Credit Hours Fall	 Spring
NURS 301, 302	6	8
NURS 322	3	
ZOOL 450, 451	4	4
SOC 360		3
	13	15

SUMMER SESSION	
NURS 303	6
ELECT	3
	9

SOPHOMORE YEAR Courses	Credit Hours Fall	 Spring
SOC 211	3	
MICRO 250	4	
AMER HIST 121, 122	3	3
ENG 211, 212	3	3
*PHYS ED	1	1
NURS 250		3
PHIL 201 or 250		3
	14	13

SUMMER SESSION	
ELECT	3
PSY 311	3
PHIL 201 or 250	3
	9

SENIOR YEAR Courses	Credit Hours Fall	 Spring
NURS 401	8	
ELECT (recommended)	3	
NURS 422	3	
NURS 402		8
NURS 423		3
NURS 425		3
	14	14

Academic Policies for Continuation in the Program

A student is required to achieve at the **C** level or better in nursing courses. Students who receive a grade less than a **C** in any nursing course may not proceed to the sequential nursing course until they have satisfactorily completed that course in which they recieved less than a grade of **C.** The number of times a student is permitted to repeat a course is determined by the Nursing Academic Standards Committee. Continuation in the program is also contingent upon compliance to ethical and professional standards of conduct.

Graduation Requirements

Graduation requirements follow the guidelines of Tennessee State University.

Division of Continuing Education

Programs of continuing education are planned to meet needs of nurses in the community who wish to upgrade and/or update their knowledge and skills.

BACCALAUREATE DEGREE NURSING COURSE OFFERINGS

250. Nursing Pharmacology. Role of medications, drugs, and chemotherapy in health care. Focused on physiological effects on bio-psychosocial functions of man.

301. Nursing Process I—Assessment and Diagnosis. 6 semester hours. An introduction to selected concepts of health as it relates to man's bio-psycho-social and cultural needs throughout the life cycle. Includes the nursing process as utilized in health assessment. Lecture 3 credits Laboratory 3 credits.

302. Nursing Process II—Planning and Intervention. 8 semester hours. Focuses on the application of the nursing process in the delivery of care to clients and families with commonly occuring health problems. Emphasis on environmental factors affecting health. Incorporates concepts of mental health and psychiatirc nursing. Lecture 4 credits; Laboratory 4 credits.

303. Client Systems Throughout the Life Span. 6 semester hours. The role of the nurse in the delivery of health care to pregnant families and to the child. Focuses on adaptation to stress presented in maturational crisis. Incorporates concepts of mental health nursing. Lecture 3 credits; Laboratory 3 credits.

322. Scientific Writing. 3 Semester hours. The study of and practical experience in the steps in planning for and preparation of scientific writing. Library search; exploring possibilities for publication; illustrative features; copyright law; and process of revision.

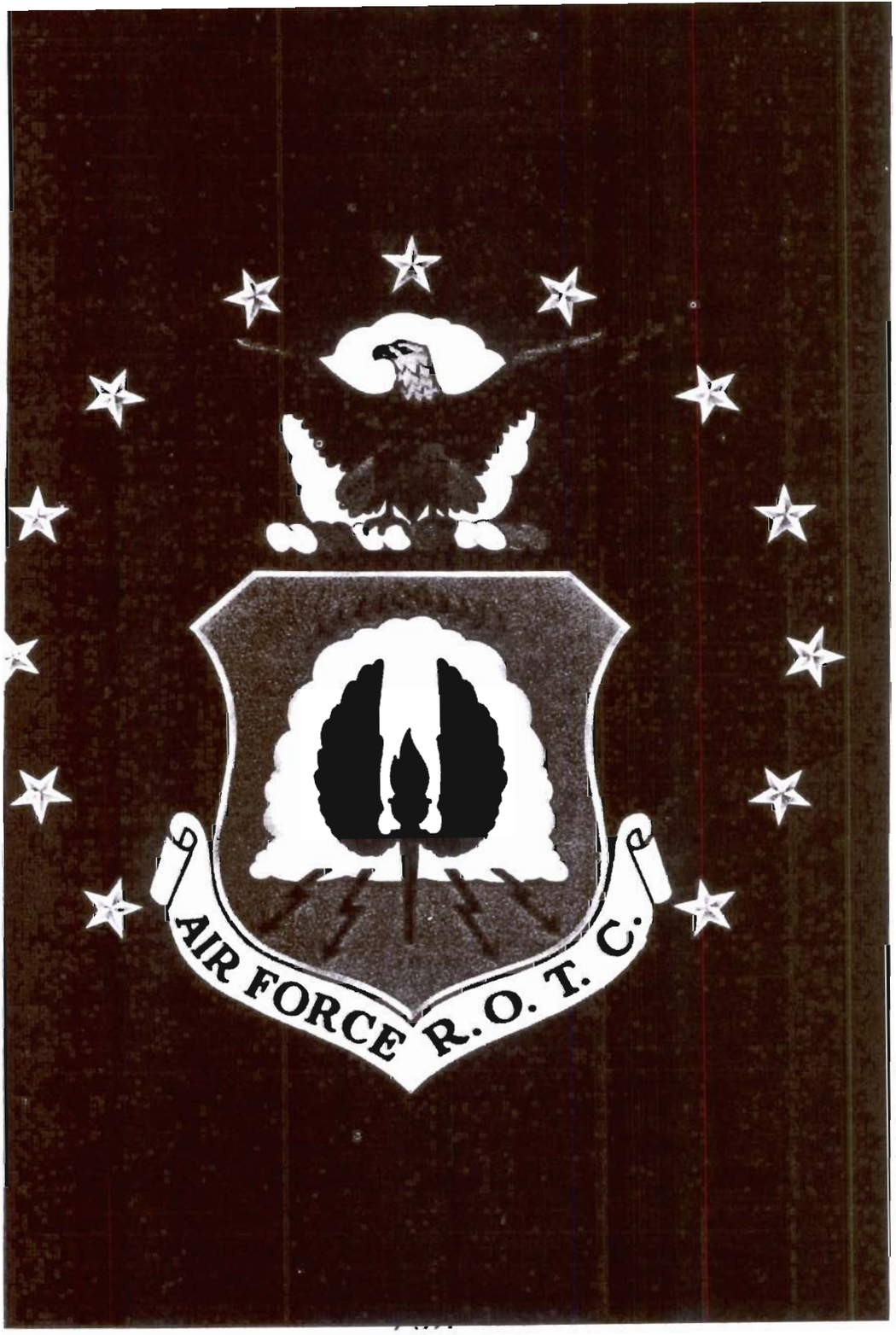
401. Client Systems Throughout the Life Span II. 8 semester hours. Utilization of nursing process in care of families in changing situations. Emphasis in-depth study of comprehensive family care and community assessment. Specific experience with developmental crisis is provided through family case analysis. Lecture 4 credits; Laboratory 4 credits.

402. Nursing Process III—Achieveing Comprehensive Nursing Goals. 8 semester hours. Application of nursing process in a variety of client systems requiring crisis intervention. Experiences include comprehensive health assessment, planning and intervention with the multidisciplinary health team and designing and evaluating care for community groups. Lecture 4 credits; Laboratory 4 credits.

422. Introduction to the Research Process. 3 semester hours. Principles, methods and procedures for research. Application to research in nursing.

423. Senior Project. 3 semester hours. Active participation in a clinical research project under guidance of a faculty sponsor.

425. Nursing Seminar—Emerging roles of the Professonal Nurse. 3 semester hours. Identification of management processes as they relate to the merging roles of the professional nurse, issues and trends in practice, and professional and legal implications. Lecture 3 credits.


AIR FORCE R.O.T.C.

DEPARTMENT OF AEROSPACE STUDIES

ARTHUR L. FOX, Lieutenant Colonel, U.S. Air Force, (Professor of Aerospace Studies)

AIR FORCE RESERVE OFFICERS TRAINING CORPS PROGRAM
Purpose of the Air Force ROTC

The Air Force ROTC Program is designed to qualify for commission those college men and women who desire to serve in the United States Air Force. The program provides training and education that will develop skills and attitudes vital to the professional Air Force officer. Upon graduation from the university and completion of all AFROTC requirements as stipulated by the Department of Aerospace Studies, cadets are commissioned as Second Lieutenants in the Air Force Reserve. All officers who elect to take navigator training must serve at least five years on active duty. All officers who elect to take pilot training must serve six years on active duty from the date of award of aeronautical rating. Non-flying officers who received Air Force Scholarships must serve a minimum of four years active duty; non-flying, non-scholarship officers must also serve four years on active duty. Opportunities exist throughout the period of active duty for graduate study through the Air Force Institute of Technology (AFIT), and commissioned service as a career. Those graduates (non-flying) who desire to continue their education may be deferred from active duty while pursuing advanced degrees.

The Aerospace Studies' Program is voluntary. It has a number of advantages for all students. Interested students are encouraged to discuss the program with their major advisors and the Department of Aerospace Studies.

AFROTC CROSS TOWN ENROLLMENT
Four-Year Educational

Institutions within Nashville and the surrounding area having a Cross-town Agreement with Tennessee State University may allow their students to enroll in the university's AFROTC Program. These students are eligible to receive all benefits, privileges and scholarships as fully enrolled TSU students. At present, Vanderbilt University, Middle Tennessee State University, Fisk University, David Lipscomb College, Trevecca Nazarene College, Meharry Medical College, Aquinas Junior College, and Belmont College have such agreements with the university.

UNIVERSITY CREDITS AND CURRICULUM

The following credits are granted for AS work:

AS 100 series (Freshman)—2 semester hours per year
AS 200 series (Sophomore)—2 semester hours per year
AS 300 series (Junior)—6 semester hours per year
AS 400 series (Senior)—6 semester hours per year

The Department of Aerospace Studies offers a minor consisting of 22 semester hours including:

Four (4) semester hours of general military course, 1 credit hour each semester during the freshman and sophomore years.

Eighteen (18) semester hours of 300 and 400 level courses during the junior and senior years as follows:

a. Six (6) semester hours of 300 and 400 level social science courses.
b. Twelve (12) semester hours of Aerospace courses. (Courses 351, 352, 451, 452). Departments may allow these courses as alternatives for elective credit and certain required courses. Departments which require unspecified minors may use the Aerospace Studies Program as a minor.

COURSES AVAILABLE

Flight Training, which included ground instruction and 25 hours of airborne instruction and flight evaluation, is offered free of charge to qualified pilot applicants who are senior ROTC cadets. The cadet receives a Federal Aviation Agency Flight evaluation during the Flight Instruction Program.

ELIGIBILITY FOR THE PROFESSIONAL OFFICER COURSE
(Junior and Senior Years)

All cadets enrolled in the Professional Officer Course (junior and senior years) of the Air Force ROTC must:

a. Have either completed the General Military Course (freshman and sophomore years), or the off-campus six weeks Field Training course, or have the required amount of prior military service.
b. Have two academic years of college remaining (either graduate or undergraduate).
c. Have achieved a qualifying score on the Air Force Officer Qualifying Test (AFROTC).
d. Execute a written agreement with the Government to complete the program, contingent upon remaining in school; and to attend the off-campus Four Week Field Training Program at the time specified and to accept an Air Force Reserve Commission, if tendered.
e. Be selected by the Professor of Aerospace Studies.
f. Meet certain specified age requirements.

BENEFITS/GENERAL

All cadets enrolled in AFROTC are furnished texts and uniforms by the Government through the Military Property Custodian at Tennessee State University. At the completion of AFROTC, or when the student withdraws from the course, texts and uniforms must be returned to the Military

Property Custodian. Uniforms, like library books, are university property and as such could delay the student from graduating if he fails to properly clear his university account. Professional Officer Course cadets (juniors and seniors) receive subsistence allowances of $100 per month; in addition, they are paid mileage to and from Field Training, plus a stipend based on current active duty pay scales.

SCHOLARSHIP PROGRAM

High school seniors, college freshmen and sophomores are eligible to compete for four-year, three-year, and two-year scholarships, respectively. These scholarships include the payment of full tuition and incidental fees, the cost of all required textbooks, plus $100 per month, tax free. Selection will depend mainly on three factors: Score on the Air Force Officer Qualifying Test, past academic performances, and the assessment of a Scholarship review board. They are given approximately equal weight. Interested persons should contact the Professor of Aerospace Studies or any AFROTC instructor.

FLIGHT INSTRUCTION PROGRAM

1. The Flight Instruction Program is an integral part of the Air Force ROTC Program and the training provides a nationally standardized evaluation device using Federal Aviation Administration performance standards.

2. The objectives of the FIP are: to motivate qualified Air Force ROTC cadets toward a career in the Air Force; to encourage qualified basic Air Force ROTC cadets to enroll in the Professional Officer Course as pilot training applicants; and to provide a screening device that will identify those pilot training applicants who lack the basic aptitudes for Air Force pilot training.

3. General Descriptions: Consists of a course of flight instruction in light, land aircraft of 100-200 horsepower with a separate and independent rudder, elevator or stabilizer and aileron control system, operable wing flaps, tricycle landing gear, approved by the FAA flight instruction. It provides 25.0 hours flying time to be apportioned as follows: 16.0 hours dual instruction, 8.0 hours solo flight and 1.0 hour maximum for final evaluation. The program also includes ground school instruction in weather, navigation, and FAA regulation taught in the ROTC classrooms.

FIELD TRAINING

Six-weeks Field Training Course. This course is designed to prepare the student for enrollment into the Professional Officer Course (AS 300 and 400). It enables transfer students and others who are unable to take the two-year General Military Course an opportunity to pursue the Advance Program and thereby receive a commission in two years of study leading to the Baccalaureate degree at the university. The training is provided at a designated Air Force base.

SPONSORED ACTIVITIES

The Department of Aerospace Studies sponsors the following activities:

1. The AFROTC Drill Teams. The "Tiger Jets" and the "Blue Devils" are the official names of the AFROTC Drill Teams. These teams are composed of approximately 40 outstanding young men and women who possess desirable leadership potential. These teams perform at athletic events, both at home and away, and at parades and ceremonies.

2. The Arnold Air Society. A national AFROTC Society for outstanding cadets.

3. The Honor Guard. Outstanding General Military Course cadets who perform selected duties for the university.

4. NCO Academy. An organization of selected cadets whose aim is to develop leadership potential through proficiency in drill and ceremonies.

5. Angel Flight. A national auxiliary of the Arnold Air Society. It is composed of selected coeds who are interested in enhancing esprit de corps, morale and appearance of the Air Force ROTC Cadet Corps.

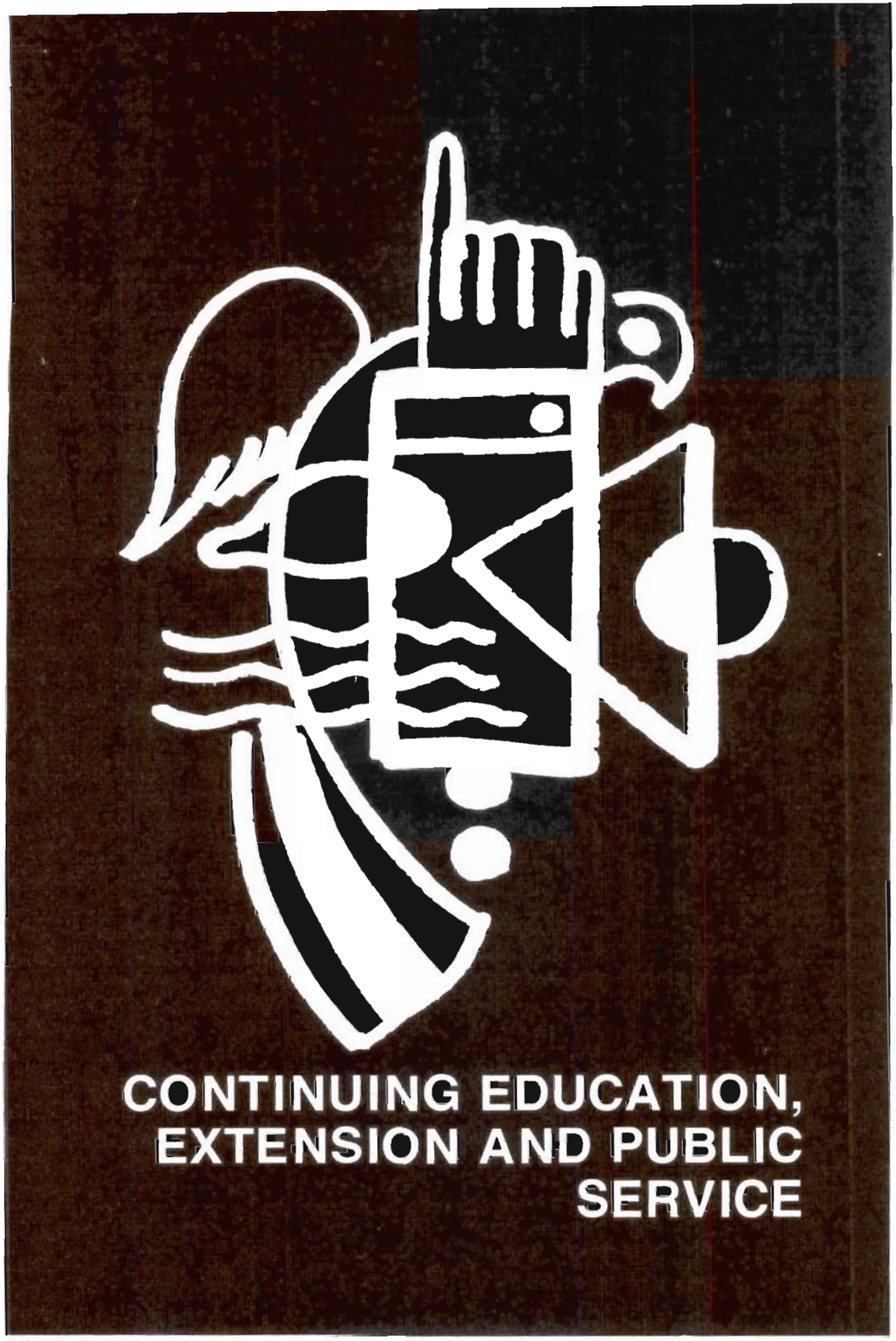
CURRICULUM

AS 151, 152. The U.S. Air Force Today. (2) Freshman year. An introductory course concerning the history and doctrine of the United States Air Force to include its mission and organization. Includes a study of United States strategic offensive and defensive forces and their roles in supporting security throughout the free world. The course also includes a study of United States general purpose and aerospace support forces within the military complex.

AS 251, 252. The Development of Air Power. (2) Sophomore year. This course examines the development of air power over the past 75 years. It traces the development of various concepts of employment of air power and focuses upon factors which have prompted research and technological change. A variety of events and elements in the history of air power is stressed, especially where these provide the significant examples of the impact of air power on strategic thought.

AS 351, 352. Air Force Leadership and Management. The Professional Officer. (6) Junior Year. These courses are designed to further develop the student's managerial and leadership abilities with emphasis on ground discussions, lectures, short papers, and human relations. Includes the meaning of professionalism, professional responsibilities, the military justice system, leadership theory, functions and practices; management principles and functions; problem solving; and management tools, practices and controls.

AS 451, 452. National Security Forces in Contemporary American Society. (6) Senior Year. These courses are designed to improve the ability to speak and write with accuracy, clarity and dignity of style. Focusing on the Armed Forces as an integral element of society, this course provides an examination of the broad range of American civil-military relations and the environmental role of the professional officer in a democratic society; socialization process within the Armed Services; the requisites for maintaining adequate national security forces; political, economic, and social constraints upon the national defense structure; and the impact of technological and international developments upon strategic preparedness and the overall defense policy-making process.



CONTINUING EDUCATION,
EXTENSION AND PUBLIC
SERVICE

CONTINUING EDUCATION, EXTENSION AND PUBLIC SERVICE

Almost every institution of higher education today finds itself in the late 70's inevitably involved in an ever-increasing role for non-credit Public Service—Continuing Education courses, programs, and activities. Today, more than ever before, many adults are engaged annually in some type of planned continuing education activity. It has been predicted that non-credit adult and continuing education programs will become a major component of American's education systems during the seventies and eighties. Tennessee State University is committed to playing a significant role in these activities, providing relevant continuing education programs of quality for professional agencies, business, industry, social service workers, and the public in general.

The Division of Continuing Education has a particular committment in providing continuing education programs for a society confronted with problems of inflation, energy, health care, civil rights, and many other issues that demand the attention of special interest groups and the publics who are struggling to maintain professional competence and a sense of real worth in the midst of these forces.

The Division of Extension and Continuing Education is responsible, in conjunction with the seven schools, for the establishment and maintenance of all continuing education activities of the University including credit Evening and Weekend Program and all non-credit programs, short courses, conferences,and institutes.

The Division of Continuing Education has accepted the following goals as primary to its assigned role in meeting the vast and varied educational needs of today's citizens:

1. To provide night and day courses, at centers and on campus, for adults who are unable to undertake regular, full-time study at the University.
2. To provide Community Education Programs designed to meet the occupational, vocational and avocational needs of adults in the community.
3. To provide opportunities for employment to improve skills and knowledge needed in current and projected occupations.
4. To improve managerial skills of individuals employed in business and industry.
5. To provide assistance in planning programs of community health, community development, family life and leisure time activities.
6. To increase participation in civic affairs through greater awareness of public affairs, community problems, local, state and national government.
7. To provide cultural enrichment of the community such areas as art, literature, music, drama, speech and reading.

Continuing education (CEU) courses offered by the Division have credit value measured in continuing education units (CEU)—ONE CEU is defined as "ten contact hours of participation in an organized continuing education experience under responsible sponsorship, capable direction and qualified instruction."

Early Start Program

This program is designed to admit high school seniors to the University for the purpose of enrolling in Freshman English, History or Mathematics. Applicants must posses a 3.00 grade point average on a 4.00 system for the high school work completed. The recommendation of either the principal or guidance counselor at the student's respective high school must accompany the application and high school transcript.

Three semester hours of credit will be awarded for each 45 clock hours of acceptable classroom performance by each student. Students may enroll in a maximum of six (6) credit hours at any given term.

The fees charged per semester hour will be the same as other undergraduate courses.

The courses are English 101, 3 hrs. credit; History 201, 3 hrs. credit; Math III, 3 hrs. credit. The following charges are made for students entering TSU: application fee $5.00 and $21.00 per credit hour.

This program is sponsored jointly by the Community Education Schools Program and TSU. The Centers are Glencliff, East and Pearl. However, the courses are available to all high school students who qualify.

CONFERENCES AND INSTITUTES

The Division of Continuing Education, Extension and Public Service through its conferences and institutes, provides an opportunity for participants, members of the university community, and highly qualified resource persons to share new information and explore new ideas that will improve their job performance or complement their academic interest. These conferences and institutes are tailored to reflect the needs of the requesting client group.

SPECIAL PROJECTS

An important service offered by The Division of Extentsion and Continuing Education is its special projects program. This activity involves the university in special skills training programs in conjunction with local and state government as well as the private sector. The division supports the following special projects:

* CETA (Comprehensive Employment and Training Act)
* CETA (Career Work Experience Program)
* Rural Land Research
* Center for Government Training Programs (for Government Employees
* Energy Conservation Programs
* Departmental Workshops
* Special Teacher Training Programs (Credit and Non-Credit).

SENIOR CITIZENS ENRICHMENT PROGRAM AND CONSUMER EDUCATION WORKSHOPS

The senior citizens enrichment program and the consumer education program provide an opportunity for faculty, staff persons, and the Tennessee State University community to extend their knowledge and expertise to interested community persons through a service of workshops covering a wide variety of topics based upon community needs. This includes classes for senior citizens and young adults. These workshops are held at various locations in the community.

COURSE OFFERINGS

2431. Developing Skills in Grantsmanship. (1-3 CEU) This seminar is for interested professional and community representatives interested in increasing Grantsmanship skills. The seminar is designed to provide technical assistance in writing proposals and grant administration.

2453. Human Relations and Communications. (1-3 CEU) This seminar provides in-service training for Human Service workers. The seminar emphasizes communications and Self-Awareness. The purpose of the seminar is to increase the practitioner's communication skills and to broaden the knowledge of the practitioner's self-awareness.

2455. Swimming—Beginners (For Adults). (1-3 CEU) This class is for those individuals who have never learned to swim and would like the opportunity to learn. The objective of the course is the development of sufficient skills to enable you to safely perform in water.

2458. Community Development Workshops. (1-3 CEU) These workshops are for community persons. Special topics are offered for Senior Citizens and persons interested in Consumer Education. A wide range of planned activities are provided by these workshops. Instructors for these workshops come from many diverse backgrounds.

2459. Gerontology. (1-3 CEU) A seminar on Aging. This course explores the Biology and Physiology and Economic aspects of Aging, age-related programs, agencies, and groups.

2462. Ladies Slimnastics. (1-3 CEU) This class emphasizes body development, exercise and weight reduction. The program will enable the individual to become aware of the need for physical fitness. Also to help the individual to firm and trim the body muscles through exercise.

2470. Federal Income Tax. (1-3 CEU) This Federal Income Tax Seminar consist of five 2 hour class sessions on Income Tax Preparation.

2473. Real Estate. (1-3 CEU) The Fundamentals of Real Estate Course is for persons who are planning to enter the Real Estate profession. It is for persons preparing for the State Affiliate Broker's Examination.

2475. Bookeeping for Small Business, Basic. (1-3 CEU) This course provides instruction in the fundamental principles of bookeeping. The course includes sessions for the organization of leadgers, controlling accounts, special journals, work sheets and financial statements.

2475-1. Seminar for Successful Office Management. (1-3 CEU) This seminar is for a 10 week period. The major areas of emphasis will be on improving accounting skills for project directors, secretaries, office workers and clerical personnel. This seminar is designed to greatly improve present office bookkeeping systems.

2475-2. Seminar for Successful Secretaires. (1-3 CEU) This seminar is designed to improve the secretaries skills of secretaries, receptionist and other office workers.

2476. Photography. (1-3 CEU) The Fundamenals of the Photograhic Process. The proper use and maintenance of the camera.

2477. Gardening. (1-3 CEU) This course is designed to familiarize the beginning gardener with the requirements for a healthy, happy vegetable garden. Instruction will include: principles and practices of organic gardening, soil types, soil analysis, garden insects and biological control, soil microbiology, fertilizer requirements, and vegetable varieties. Good ecological practices will be stressed.

2478. GED Preparation. (1-3 CEU) The General Education Development program at Tennessee State University is designed to assist persons who wish to take the GED test and achieve the equivalence of a high school diploma.

2480. Reading Imporvement for Adults. (1-3 CEU) A course designed to increase reading comprehensive and speed; provides for individual needs by beginning each student at a confortable level and progressing the activity to increase rate and comprehension.

2482. ESL (Oral Expression). (1-3 CEU) This course includes the teaching of English grammar and lexicon to international students. To develop an understanding of English grammar.

2483. ESL (Composition). (1-3 CEU) To acquaint the international student with simple writing skills. To introduce students to simple reading materals for interpretation.

2485. Communications (Sign Language). (1-3 CEU) This course is for persons who would like to learn Sign Language.

2486-B. Knitting. (1-3 CEU) Introduces the beginner to the basic steps of the modern method of knitting and how to read and follow knitting patterns and installations. Each student will have the opportunity to knit one sweater.

2486-C. Home Interior Decoration. (1-3 CEU) A discussion of the principles that are involved to create unity in decorating a room or a whole area i.e. walls, floors, furniture. Materials needed for the class, tracing paper, ¼" grid paper, pencils and eraser.

2486-D. Upholstery. (1-3 CEU) Instruction in design and repair of furniture; includes creative and artistic selection of materials, comfortable and durable construction by installing padding and aligning over stuffed furniture. First time registrants in this course may re-do nothing larger than a chair. In the second enrollment a larger piece may be brought in.

2487-A. Beginning Sewing. (1-3 CEU) A beginners course in modern techniques of sewing; includes instruction in use and care of modern sewing and pressing equipment, pattern selection as related to body measurements, simple alterations, fabric selection with emphasis placed on "easy-to-sew" patterns and completion of a simple garment.

2487-B. Advanced Sewing. (1-3 CEU) This course is designed for the person who desires to develop the ability to make more difficult pattern alterations, use of more complicated patterns, use and care of fabrics requiring special treatment, Completion of at least one garment using more advanced techniques and details which give individuality to the garment, will be required.

2488. GRE and General Math Review I. (1-3 CEU) This course includes a review of arithmetic procedures, basic algebra and basic geometry. It is especially designed for those studying for the Graduate Record Exam, Civil Service Test, Scholastic Aptitude Test, or any other test requiring a thorough knowledge of high school mathematics.

2496. Interior Decoration. (1-3 CEU) This class will cover specific uses of color, furniture arrangement, choosing furniture styles, and home decorations.

Non-Credit Programs

Programs in Continuing Education are interdisciplinary in nature, thereby encompassing a wide variety of offerings based upon the public service needs of the community from time to time.

Programs listed in this catalogue are examples of some non-credit activities offered by Tennessee State University and are not reflective of the total Continuing Education Program.

COOPERATIVE AGRICULTURAL RESEARCH PROGRAM
Dr. Williamson, Director

OVERVIEW Of CARP

The Cooperative Agricultural Research Program (CARP) at Tennessee State University (TSU), as funded under Section 1445 of Public Law 95-113, is initiated under serious commitment to those purposes for which funds are provided. The two-fold mission of the TSU Cooperative Agricultural Research Program is based upon aspects of stated missions of the University and the United States Department of Agriculture (USDA). The first aspect of the mission is to increase scientific knowledge and to produce technical information and outcomes that will contribute to the development and maintenance in both Tennessee and the United States of agricultural industry and rural community structures. In a more specific sense, this entails the development and improvement of the rural home and rural life sectors and the promotion of human welfare and world peace. The second focus of the mission, a pre-condition of the first, is to encourage faculty and students to engage in research in designated priority areas and to enhance development of research capability at TSU.

The Cooperative Agricultural Research Program combines the best efforts of over thirty scientists, representing over eight departments and four schools, who guide their scientific inquiry in seven Program Areas, approved by the Science and Education Administration-Cooperative Research (SEA-CR), United States Department of Agriculture (USDA). Since its beginning, over ten years ago, the Program has benefitted from funding from USDA in excess of $6 million. Over twenty-three projects have been successfully completed and thirty-nine projects are active today.

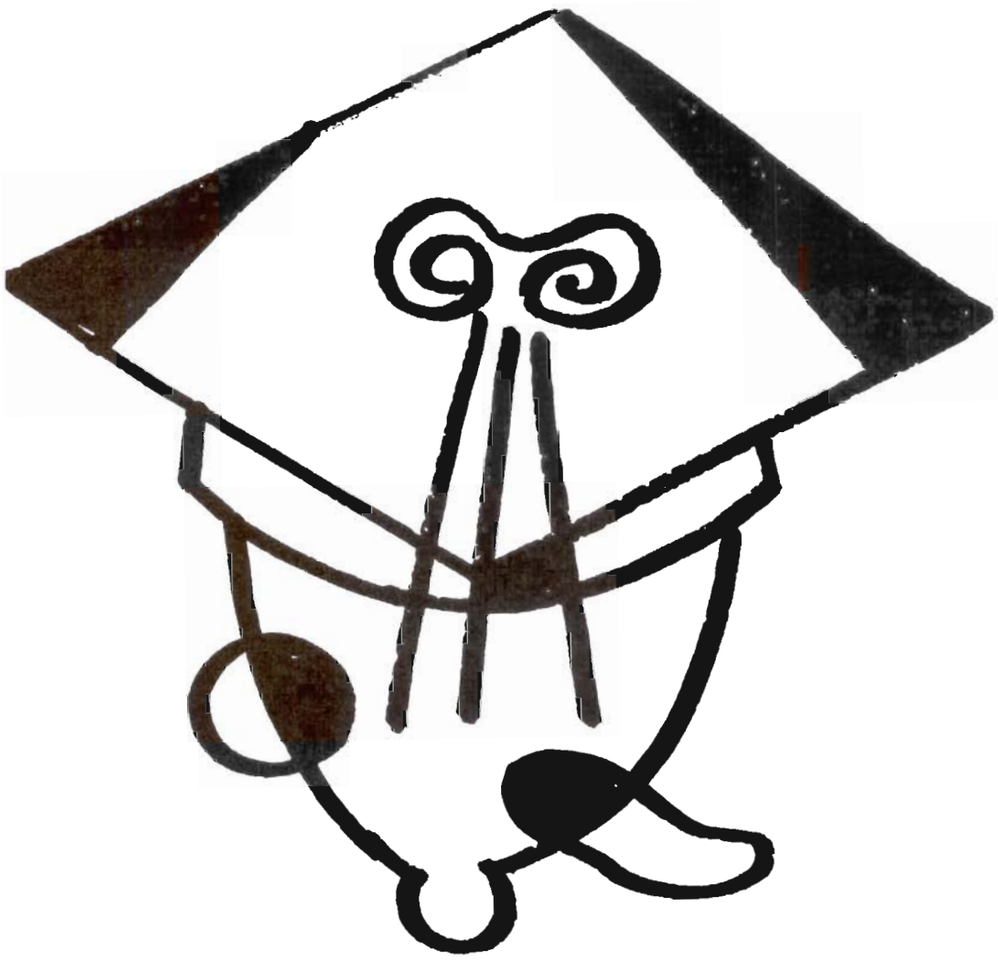
The scientists in the TSU/CARP are acutely aware that Tennessee has more than its fair share of disadvantaged people and of small, poverty-level farmers. We recognize the pressures of growing population on natural resources and are aware of that stress which urbanization and increased social change places on the individual and on families. Moreover, we are aware that we are partners in a larger agricultural effort concerned with feeding a growing world population. Therefore, every effort is exerted precisely to conduct research and develop information which lead to improving the qualiy of life.

The Focus on Students

Students are encouraged to participate in CARP's activities as graduate research assistants or as undergraduate research technicians. At the M.S. level, students may simply make inquiry with the department chairman or with the professor who directs an ongoing CARP project within the department. Mostly all CARP projects have funds designated to provide financially supported research experience for graduate students. More than fifteen master's theses have been successfully completed under this program and ways are being sought to expand student opportunities. Undergraduate students also participate in CARP's research and are carried as paid research technicians on many of the projects. The primary benefit to undergraduate students is the opportunity to obtain financial support and to cmplement his/her undergraduate education with meaningful exposure to the exciting world of scientific inquiry.

The Seven Areas of Concentration

1. Research to Improve Economic Opportunities for Rural People in Tennessee
2. Research on the Effect of Chemical Residues and Farm Wastes on the Environment
3. Research to Develop Trees to Enhance the Environments of Rural and Urban Areas
4. Research on Food, Nutrition and Health
5. Research on Improving Systems Management Practices (Livestock) for Limited Resource Persons in Rural Tennessee
6. Research on Social and Economic Improvement of the Level of Living of Limited Resource Farm Families
7. Research on Plant Mutation and on Genetic Improvement of Plant Varieties



THE GRADUATE SCHOOL

THE GRADUATE SCHOOL

JAMES H. REEVES, Ed.D., Dean

Graduate studies leading to the Master's degree at Tennessee State University were authorized by te General Assembly in 1941, and programs in teacher-education were initiated during the following year. Sometime later the Graduate School was established, and severl other graduate offerings were added.

Authorization to offer the Specialist in Education degree was granted in 1974.

Currently, the following graduate degrees and major fields were offered:

MASTER OF ARTS

Biology
English
History
Speech Communication and Theatre;

MASTER OF ARTS IN EDUCATION

Administration and Supervision
Adult Education
Business Education
Elementary Education
Health and Physical Education
Home Economics Education
Vocational Industrical Education
Music Education
Reading
Secondary School Instruction
Special Education

MASTER OF BUSINESS ADMINISTRATION

MASTER OF EDUCATION

Administration and Supervision
Adult Education
Business Education
Elementary Education
Guidance and Counseling
Health and Physical Education
Home Economics Education
Vocational Industrial Education
Music Education
Psychology
Reading
Secondary School Instruction
Special Education

MASTER OF SCIENCE
- Agricultural Sciences
- Biology
- Chemistry
- Guidance and Counseling
- Music Education
- History
- Psychology
- Recreation
- Speech Communication and Theatre

MASTER OF CRIMINAL JUSTICE
- Joint Program with MTSU

MASTER OF ENGINEERING

MASTER OF PUBLIC ADMINISTRATION

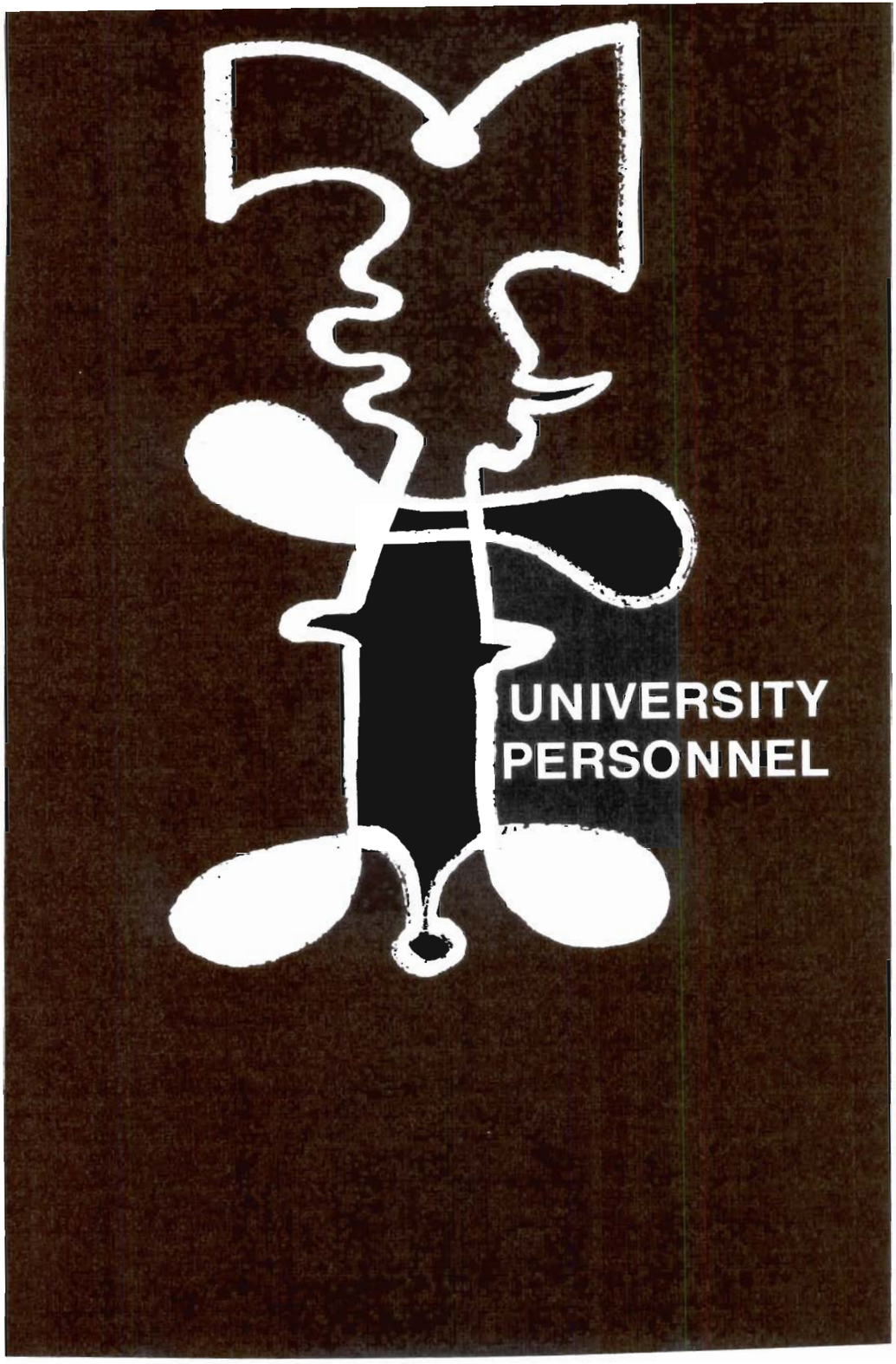
SPECIALIST IN EDUCATION
- Administration and Supervision
- Curriculum and Instruction

Requirements for these programs are described in the current Graduate School Bulletin.

Further information may be obtained by writing to:

The Dean of the Graduate School
Tennessee State University
3500 Centennial Boulevard
Nashville, Tennessee 37203

All applications, test scores, and transcripts should be mailed to the above address.


UNIVERSITY
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Director of Athletics ..... Raymond Whitmon, B.S., M.S.
Director of Student Financial Aid ..... Homer Wheaton, B.S., M.S.
Director of Student Health Services ..... Carr Treherne, A.B., M.D.
Director, Student Development Services ..... John Joyner, B.S., M.S., Ph.D.
Associate Director, Student Development Services ..... James E. Groccia, B.A., M.S., Ed.D.
Director, Child Care Center ..... Richard Jung, B.S., M.A.
Director, Special Services ..... Mary Love, B.S. M.S.

BUSINESS AFFAIRS

Vice President for Business Affairs ..... E.J. Junior, Jr., B.S., M.B.A.
Director of Personnel ..... Carol Wade, B.S.
Director of Purchasing ..... Alfred Sharpe, Jr., B.S.
Director of Finance and Accounting ..... Sandra Davis, B.S.
Chief Accountant ..... Ernest Williamson, B.S., MBA.
Director of Auxiliary Enterprise and Special Services
Director of Safety and Security ..... James Robertson, B.S.
Director of Physical Plant ..... Wayne Reeves, B.S.
Director of Facilities Planning ..... Walter Vincent, B.S., M.A.E.
Director of Business Services ..... Mark McCann, B.S., M.S.
Director of Budget ..... David Saunders, B.S.

MANAGEMENT SERVICES

Vice President for Management Services ..... Willard Smith, B.S., M.Ed., Ph.D.
Director of Management Information Systems ..... Stanford Johnson, B.S., M.A.
Director of Administrative Computer Center ..... Ed Wisdom, B.S.
Director of Academic Computer Center ..... Andrew Thomas, B.S.
Director of Planning, Managment, and
Evaluation and Institutional Research ..... John Matlock, B.S., M.A., Ph.D.

OFFICE OF DEVELOPMENT

Vice President for Research and
Development ..... Calvin Atchison, B.S., M.A., Ed.D.
Associate Vice President for Research
and Development ..... John Mallette, B.S., M.S., Ph.D.
Director of Public Relations ..... Harold Jackson, B.S., M.S.
Director of Alumni Relations ..... Leon King, B.S., M.S.

CONTINUING EDUCATION, EXTENSION, AND PUBLIC SERVICE

Vice President for Continuing Education
Extension, and Public Service ..... John Crothers, B.A., M.A., Ed.D.
Associate Vice President for Continuing
Education, Extension, and Public
Service and Adminstrator of 1890
Land Grant Programs ..... James Farrell, B.S., M.S., Ed.D.

SEPT
MAY
JUNE
UNIVERSITY
CALENDAR

ACADEMIC CALENDAR
FALL SEMESTER 1979

August 18, Saturday	Residence Halls open for all students
August 19, 20, 21 Sun-Tue	Freshman Orientation
August 20, 21 Mon-Tue	Faculty Institute-Faculty report at 8:00 a.m.
August 22, 23, 24 Wed-Fri	Registration for all students by alphabet
August 25, Saturday	Registration for Graduate Students
August 27, Monday	Classes begin
September 3, Monday	Labor Day
September 13, Thursday	Opening Convocation
September 7, Friday	Last Day for reimbursement
October 12, Friday	Applications for Graduation due for students completing degree requirements during fall semester
October 11-12, Thur-Fri	Mid-Semester Examinations
October 27, Friday	Last day to withdraw from a course or University
November 22-23, Thur-Fri	Thanksgiving Holidays
December 11-14, Tue-Fri	Final Examinations for Fall Semester
December 17-January 2	Christmas Recess

SPRING SEMESTER 1980

January 2-3, Wed-Thur	Faculty Report at 8:00 a.m., Faculty Institute
January 3-4, Thur-Fri	Registration for Spring Semester
January 5, Saturday	Registration for Graduate and Week-end Students
January 7, Monday	Classes begin at 8:00 a.m.
January 18, Friday	Last Day for reimbursement
February 8, Friday	Applications for Graduation due for student completing degree requirements during Spring Semester
February 21-22, Thur-Fri	Mid-Semester Examinations
March 31-April 4, Mon-Fri	Spring Recess
March 7, Friday	Last Day to withdraw from a course or University
April 17-18, Thur-Fri	Final Examination for Graduating Seniors
April 29-May 2, Tue-Fri	Final Examination for Spring Semester
May 3, Saturday	Commencement Exercises
May 5-9, Mon-Fri	Faculty Institute

SUMMER TERM I, 1980

June 2, Monday	Registration
June 3, Tuesday	Classes begin at 8:00 a.m.
June 9, Monday	Applications for Graduation due for Students completing degree requirements during Summer Semester
July 3, Thursday	Final Examinations

SUMMER II, 1980

July 7, Monday	Registration
July 8, Tuesday	Classes begin at 8:00 a.m.
August 8, Friday	Final Examination
August 9, Saturday	Commencement Exercises

ACADEMIC CALENDAR
FALL SEMESTER 1980

August 16, Saturday	Residence Halls open for all Students
August 17, 18, 19 Sun-Tue	Freshman Orientation
August 18-19 Mon-Tue	Faculty Institute-Faculty report at 8:00 a.m.
August 20, 21, 22 Wed-Fr	Registration for all students by alphabet
August 23, Saturday	Registration for Graduate Students
August 25, Monday	Classes begin
September 1, Monday	Labor Day
September 5, Friday	Last Day for reimbursement
October 10, Friday	Applications for Graduating due for students completing degree requirements during fall semester
October 9-10, Thur-Fri	Mid-Semester Examinations
October 24, Friday	Last day to withdraw from a course or University
November 27-28, Thur-Fri	Thanksgiving Holidays
December 9-12, Tue-Fri	Final Examination for Fall Semester
December 15-January 2	Christmas Recess

SPRING SEMESTER 1981

January 2-5, Fri-Mon	Faculty Report at 8:00 a.m., Faculty Institute
January 5-6, Mon-Tue	Registration for Spring Semester
January 3, Saturday	Registration for Graduate and Week-end Students
January 7, Wednesday	Classes begins at 8:00 a.m.
January 16, Friday	Last Day for reimbursement
February 6, Friday	Applications for Graduation due for student completing degree requirements during spring semester
February 19-20, Thur-Fri	Mid-Semester Examinations
April 13-17, Mon-Fri	Spring Recess
March 6, Friday	Last Day to withdraw from a course or University
April 16-17, Thur-Fri	Final Examination for Graduating Seniors
May 5-8, Tue-Fri	Final Examination for Spring Semester
May 9, Saturday	Commencement Exercise
May 11-15, Mon-Fri	Faculty Institute

SUMMER TERM I, 1981

June 1, Monday	Registration
June 2, Tuesday	Classes begin at 8:00 a.m.
June 8, Monday	Applications for Graduation due for Students completing degree requirements during Summer Semester
July 3, Friday	Final Examinations

SUMMER II, 1981

July 6, Monday	Registration
July 7, Tuesday	Classes begin at 8:00 a.m.
August 7, Friday	Final Examination
August 8, Saturday	Commencement Exercises

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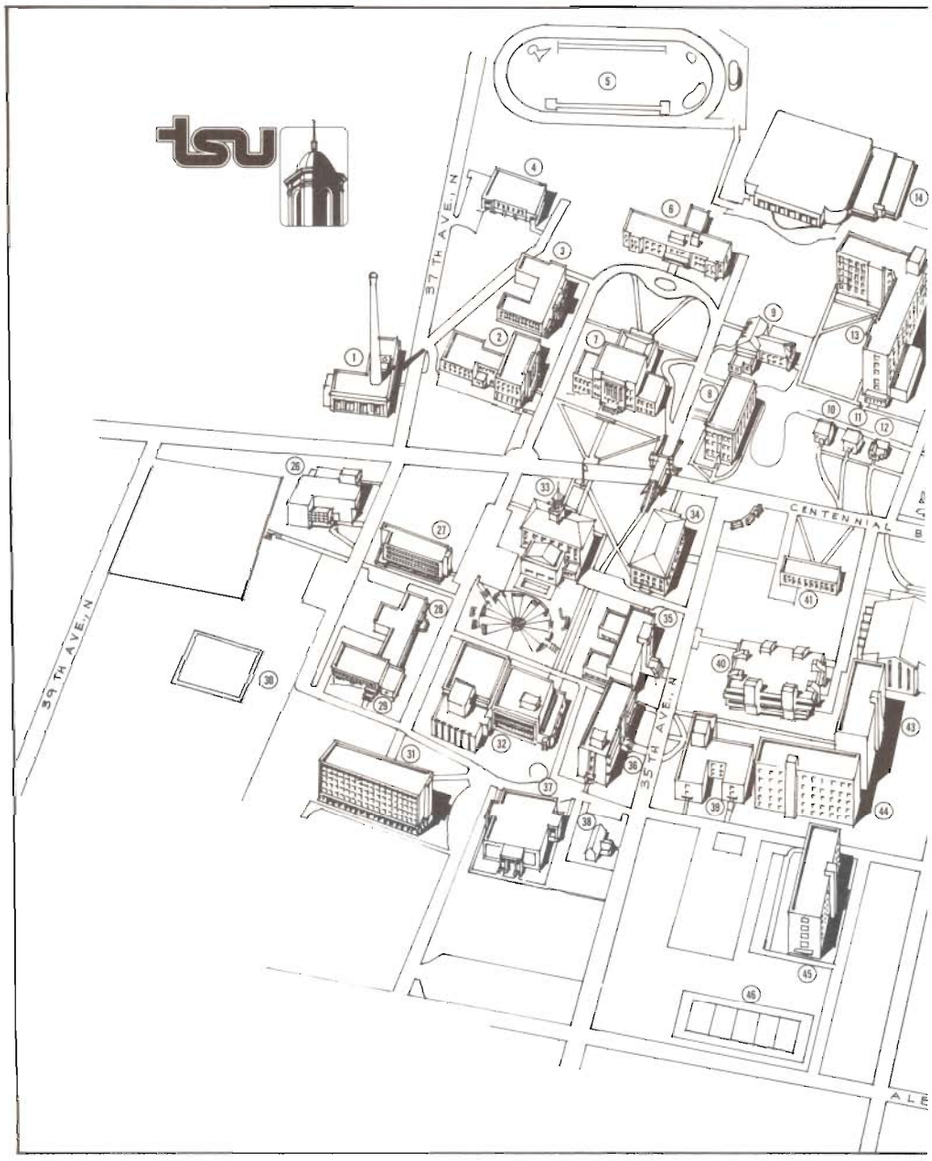

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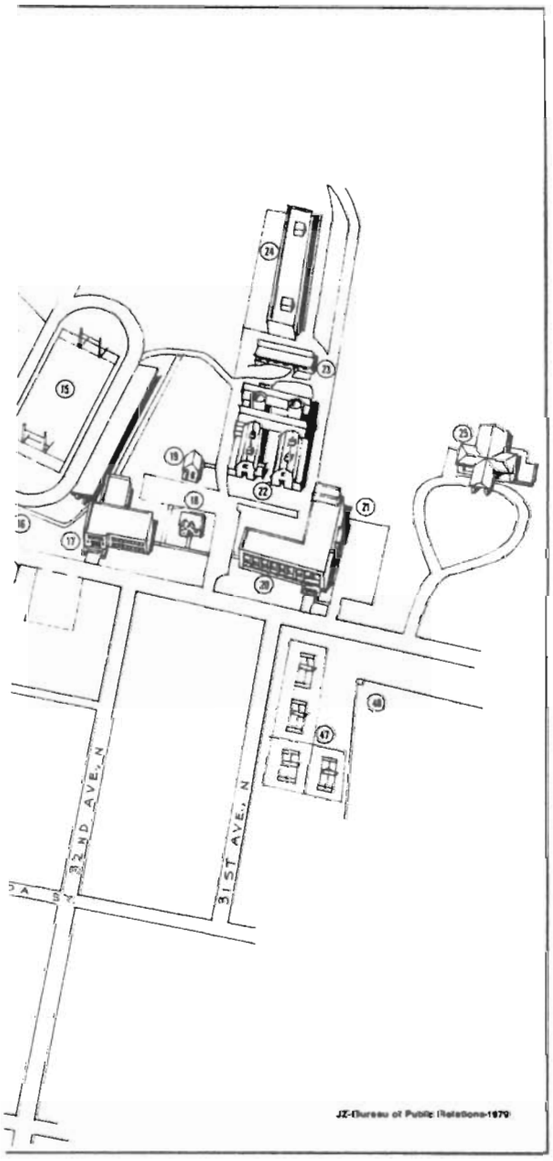

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