## TEXAS

## SOUTHERN UNIVERSITY




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# TEXAS SOUTHERN UNIVERSITY 

## The Graduate School

201 Hannah Hall

Houston, Texas 77004


Graduate Bulletin
2001-2003

## BOARD OF REGENTS

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| Norma Robinson | University Registrar |

Texas Southern University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4501) to award the Bachelor's, Master's and Doctorate degrees.

## GENERAL INFORMATION

The statements set forth in this bulletin are for informational purposes only and should not be construed as the basis of a contract between a student and Texas Southern University.

While the provisions of this bulletin will ordinarily be applied as stated, Texas Southern University reserves the right to change any provision listed in this bulletin, including but not limited to academic requirements for graduation, without actual notice to individual students. Every effort will be made to keep students advised of any such changes. Information concerning changes in policies, procedures, and requirements will be available in the offices of the registrar, the academic advisors, student services and in the academic departments of the major schools and colleges. It is especially important that each student note that it is his or her responsibility to be aware of current graduation requirements for a particular degree program.

This graduate bulletin contains information on academic and non-academic policies, procedures, and requirements with which each student must become familiar. Students should consult the table of contents for guidance. Provisions in this bulletin will not be valid after August 2003.

## NOTICE OF NONDISCRIMINATORY POLICIES

Texas Southern University is in compliance with Title VI of the Civil Rights Act of 1964 and does not discriminate on the basis of race, creed, color, or national origin. It is also in compliance with the provisions of Title IX of the Educational Amendments Act of 1972 which prohibits discrimination on the basis of sex.

It is the policy of the University that sexual harassment as defined in the EEOC Guidelines will not be tolerated among members of the Texas Southern University community. Any complaint of sexual harassment should be reported immediately to the appropriate person designated by the Provost/Senior Vice President for Academic Affairs or deans of the colleges and schools.

## NOTICE OF WEAPONS POLICY

Under Texas Penal Code Section 46.03, citizens may obtain licenses to carry concealed handguns. Although this is the case, firearms. fireworks. and explosives of any kind are NOT PERMITTED on the Texas Southern University Campus or other State-Owned Property, except in the possession of State Law Enforcement Officers. Violators will be dismissed from the University and are subject to legal sanctions.

## UNIVERSITY COMMITMENT AND STUDENT RESPONSIBILITIES

## University Commitment

On June 17, 1973, the Texas Legislature designated Texas Southern University as a "special purpose institution of higher education for urban programming." Subsequent to this mandate, the designation and the university motto of "Excellence in Achievement" were welded in order to formulate the institutional mission. Accordingly, the University is committed to the management of a comprehensive educational curriculum that will render the motto creditable.

## Student Responsibilities

Texas Southern University provides a student-centered learning environment in which students are afforded opportunities to practice self-discipline, to assume responsibilities as mature adults, and to enjoy certain freedoms. When students elect to enroll at the University, they also accept and agree to abide by the rules, regulations, and policies by which the University is governed. Since enrollment is voluntary, acceptance is voluntary. On this basis, students
cannot, without great personal liability to their continued association with the University, obstruct, hamper, disrupt, or otherwise interfere with the institution's attainment of its lawful mission. The institution, therefore, has both the right and the obligation to promulgate rules and regulations designed to promote attainment of its purpose.

## MISSION OF TEXAS SOUTHERN UNIVERSITY

In addition to its designation as a statewide general purpose institution of higher education, Texas Southern University is designated as a special purpose institution of higher education for urban programming and shall provide instruction, research, programs, and services as are appropriate to this designation. Therefore, ascribing to the global implications of its urban mission, the University focuses on high quality teaching, research and public service as a means of preparing students for leadership roles in the urban communities of our state, nation, and world. Texas Southern University offers a variety of academic programs to students of diverse backgrounds and various levels of scholastic achievement. These students matriculate in undergraduate and graduate programs leading to degrees in the arts, sciences, public affairs, education, business, health sciences, law, pharmacy, and technology.

A special challenge of the institutional mission is the open access philosophy which affords admission to broad categories of students - students from the academically under-prepared to the intellectually gifted. In support of this concept, faculty develop special programs and create an appropriate intellectual climate for individuals who are not included in traditional university missions. The expected educational outcomes of all academic programs are that students will possess an appreciation for humanistic values, acquire effective use of communicative skills, and develop an appreciation and competency in the use of technology in daily living. These educational outcomes are periodically assessed to ensure the quality of the educational experience. As the result of matriculating at Texas Southern University, students gain the personal confidence and capability to succeed in the global workplace.

In fulfilling its purpose, Texas Southern University is committed to the following: maintaining an innovative, productive, and receptive learning environment; implementing initiatives to ensure a suitable environment for research and other scholarly activities; and infusing new technological advances into its infrastructure and academic programs.

## ORGANIZATION FOR INSTRUCTION

The University is organized for instruction into nine colleges and schools. The names of these instructional units appear below:

The College of Liberal Arts and Behavioral Sciences<br>The Jesse H. Jones School of Business The College of Education<br>The Thurgood Marshall School of Law<br>The College of Pharmacy and Health Sciences<br>The College of Science and Technology<br>The Graduate School<br>The College of Continuing Education<br>The School of Public Affairs

## ACCREDITED PROGRAMS

The University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools. The College of Liberal Arts and Behavioral Sciences and the College of Education are approved by the Texas Education Agency and the Texas Association of Colleges. The Thurgood Marshall School of Law is approved by the State Board of Law Examiners, accredited by the American Bar Association, and holds membership in the American Association of Law Libraries.

The College of Pharmacy and Health Sciences is accredited by the American Council of Pharmaceutical Education and is a member of the American Association of Colleges of Pharmacy.

The Industrial Technology Programs of the College of Science and Technology are accredited by the National Association of Industrial Technology.

## THE ROBERT JAMES TERRY LIBRARY

The combined facilities of the Robert James Terry Library at Texas Southern University support the curricular and research needs of the University community through the development of pertinent collections and the provision of services designed to facilitate access to information. The principal research collections, numbering over 457,000 volumes and 363,000 microfilms, are housed in a centrally located facility providing seating for over 1,000 patrons. To augment study, a number of closed study rooms and individual study carrels are provided on most floors. With the exception of the special collections, the entire library has an open stack arrangement.

The Robert James Terry Library is conveniently arranged with three major public-access service areas -- reference, circulation, and special collections -- located on the first floor. The fifth floor contains the business and economics collection.

The Library has automated circulation, cataloging, acquisitions, and serials control systems. Online public-access catalog terminals are located on each floor and in the College of Pharmacy and Health Sciences Reading Room. Computer based bibliographic search services offer over 200 databases. CD-ROM access to databases is provided to students. The Library provides interlibrary loan via direct link with most major libraries in the U.S. using the computer and telecommunications facilities of the On-line College Library Center (OCLC) bibliographic connection. Tours of the Library can be arranged to provide general orientation and in-depth bibliographic instruction in specific fields of study.

Equipment has been added to comply with the Americans with Disabilities Act (ADA) requirements. Included are a closed circuit television system (CCTV) which can enlarge the size of printed material up to 60 times the original size and a Kurzweil reader which can scan printed material, convert the text to synthesized speech and read it aloud. On each floor of the Robert James Terry Library are tables which are designed to accommodate library users in wheelchairs. For users of computers and televisions, there are screen enlargers available to enhance viewing. In the Reference Department, first floor, some reference materials are available in large print editions.

Finally, one of the unique features of the Library is its special collections housing the "treasures" of the University. These unique holdings provide a varied repository of collections with international significance. The collections include the Barbara Jordan Archives, the Traditional African Art Gallery, the Heartman Collection on African-American Life and Culture, and the University Archives.

## FEES AND EXPENSES

## Resident Status

Students enrolled at the University can be classified as resident, non-resident, or foreign. All students attending Texas Southern University who are non-residents of this state will be charged additional tuition in accordance with state law. The burden of registering under proper residence status is the responsibility of the student.

A request for a change of residency for tuition purposes should be made as soon as the student has met the requirements for residency, but no later than the fourth class day for a Summer session or the 12th class day for a Fall or Spring semester. Changes made after the fourth/twelfth class day will apply only for future semesters. All required documents must accompany the Residency Application form which is available in the Office of the Registrar.

The determination of residency classification for tuition purposes is governed by statutes enacted by the Texas Legislature and by rules and regulations promulgated by the Coordinating Board, Texas College and University System. These regulations may be viewed in the Robert J. Terry University Library.

## Graduate Tuition and Registration Fee

Tuition Total Charges

| \# of <br> Semester |  | Non |  | Student | Student | Inter-national | Recreational | Medical | Computer |  | Non |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Resident | General | Service | Union |  |  | Service | Service |  | Resident/ |  |
| Hours | Resident | Foreign | Use Fee | Fee | Fee | Education | Facility Fee | Fee | Fee | Resident | Foreign |  |
| 9 | 594.00 | 2322.00 | 180.00 | 114.30 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 991.80 | 2719.80 | from the Chart below: |
| 8 | 528.00 | 2064.00 | 160.00 | 101.60 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 893.10 | 2429.10 | Business: 45.00 |
| 7 | 462.00 | 1806.00 | 140.00 | 88.90 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 794.40 | 2138.40 | Education: 22.50 |
| 6 | 396.00 | 1548.00 | 120.00 | 76.20 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 695.70 | 1847.70 | Science \& Tech: 35.00 |
| 5 | 330.00 | 1290.00 | 100.00 | 63.50 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 597.00 | 1557.00 | HFA \& SS: 30.00 |
| 4 | 264.00 | 1032.00 | 80.00 | 50.80 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 498.30 | 1266.30 |  |
| 3 | 198.00 | 774.00 | 60.00 | 38.10 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 399.60 | 975.60 |  |
| 2 | 132.00 | 516.00 | 40.00 | 25.40 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 300.90 | 684.90 |  |
| 1 | 66.00 | 258.00 | 20.00 | 12.70 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 202.20 | 394.20 |  |

## Doctoral Tuition and Registration Fee

| No. of Semester Hours | Tuition |  |  | Student Service Fee | Student <br> Union <br> Fee | International Education | Recre- Medical <br> ational Service <br> Facility Fee |  | Computer Service Fee | Doctoral <br> Program <br> Fee | Total Charges |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Non- |  |  |  |  |  |  |  |  | Non |
|  |  | Resident/ | General |  |  |  |  |  |  |  | Resident/ |
|  | Resident | Foreign | Use Fee |  |  |  |  |  | Resident |  | Foreign |
| 9 | 684.00 | 2412.00 | 180.00 | 114.30 | 17.50 | 1.00 | 50.00 | 17.50 |  | 17.50 | 50.00 | 1131.80 | 2859.80 |
| 8 | 608.00 | 2144.00 | 160.00 | 101.60 | 17.50 | 1.00 | 50.00 | 17.50 |  | 17.50 | 50.00 | 1023.10 | 2559.10 |
| 7 | 532.00 | 1876.00 | 140.00 | 88.90 | 17.50 | 1.00 | 50.00 | 17.50 |  | 17.50 | 50.00 | 914.40 | 2258.40 |
| 6 | 456.00 | 1608.00 | 120.00 | 76.20 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 50.00 | 805.70 | 1957.70 |
| 5 | 380.00 | 1340.00 | 100.00 | 63.50 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 50.00 | 697.00 | 1657.00 |
| 4 | 304.00 | 1072.00 | 80.00 | 50.80 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 50.00 | 588.30 | 1356.30 |
| 3 | 228.00 | 804.00 | 60.00 | 38.10 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 50.00 | 479.60 | 1055.60 |
| 2 | 152.00 | 536.00 | 40.00 | 25.40 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 50.00 | 370.90 | 754.90 |
| 1 | 76.00 | 268.00 | 20.00 | 12.70 | 17.50 | 1.00 | 50.00 | 17.50 | 17.50 | 50.00 | 262.20 | 454.20 |

## Pharmacy - Professional Program Tuition and Registration Fee

|  | Tuition |  |  |  |  |  |  |  |  | Total Charges |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. of Semester <br> Hours | Resident | NonResident/ Foreign | General Use Fee | Student Service Fee | Student <br> Union <br> Fee | International Education | Recreational Facility Fee | Medical Service Fee | Computer Service Fee | Doctoral <br> Program <br> Fee | Resident | Non <br> Resident/ <br> Foreign |
| 9 | 504.00 | 2412.00 | 190.00 | 114.36 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 945.62 | 2853.62 |
| 8 | 448.00 | 2144.00 | 170.00 | 114.36 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 869.62 | 2565.62 |
| 7 | 392.00 | 1876.00 | 150.00 | 114.36 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 793.62 | 2277.62 |
| 6 | 336.00 | 1608.00 | 130.00 | 114.36 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 717.62 | 1989.62 |
| 5 | 280.00 | 1340.00 | 110.00 | 95.30 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 622.56 | 1682.56 |
| 4 | 224.00 | 1072.00 | 90.00 | 76.24 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 527.50 | 1375.50 |
| 3 | 168.00 | 804.00 | 70.00 | 57.18 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 432.44 | 1068.44 |
| 2 | 112.00 | 536.00 | 50.00 | 38.12 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 337.38 | 761.38 |
| 1 | 56.00 | 268.00 | 30.00 | 19.06 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | 242.32 | 454.32 |

Pharmacy - Post Baccalaureate Tuition and Registration Fee


| 7 | 532.00 | 1876.00 | 150.00 | 114.36 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | $\mathbf{9 3 3 . 6 2}$ | $\mathbf{2 2 7 7 . 6 2}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 6 | 456.00 | 1608.00 | 130.00 | 114.36 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | $\mathbf{8 3 7 . 6 2}$ | $\mathbf{1 9 8 9 . 6 2}$ |
| 5 | 380.00 | 1340.00 | 110.00 | 95.30 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | $\mathbf{7 2 2 . 5 6}$ | $\mathbf{1 6 8 2 . 5 6}$ |
| 4 | 304.00 | 1072.00 | 90.00 | 76.24 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | $\mathbf{5 9 7 . 5 0}$ | $\mathbf{1 3 7 5 . 5 0}$ |
| 3 | 228.00 | 804.00 | 70.00 | 57.18 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | $\mathbf{4 9 2 . 4 4}$ | $\mathbf{1 0 6 8 . 4 4}$ |
| 2 | 152.00 | 536.00 | 50.00 | 38.12 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | $\mathbf{3 7 7 . 3 8}$ | $\mathbf{7 6 1 . 3 8}$ |
| 1 | 76.00 | 268.00 | 30.00 | 19.06 | 26.26 | 1.00 | 50.00 | 17.50 | 17.50 | 25.00 | $\mathbf{2 6 2 . 3 2}$ | $\mathbf{4 5 4 . 3 2}$ |

## Other Fees

Drop \& Add Fee: Students changing classes will be assessed a $\$ 30.00$ Change of Program fee. Laboratory Fee: Course and Laboratory Fees are charged for certain classes. Please check the current bulletin. Late Registration Fee: Failure to complete registration on the date specified will result in a $\$ 100.00$ late fee. Parking: Each Summer Semester \$20.00 for a Student Decal. Property Deposit Fee: All new students are required to maintain a general property deposit of $\$ 10.00$ in the first semester.

## Tuition and Associated Fees

The University reserves the right to adjust fees without prior notice. Tuition and regular fees paid by all students have been listed and are available through the Office of the University Comptroller. In addition to these, estimates of special laboratory fees and the cost of books and supplies must be added to arrive at an approximate total amount needed at registration.

Students should make all mail payments to the University, by Cashier's Check, Money Order, or Personal check, payable to Texas Southern University. Personal checks will not be accepted for any amount in excess of the total amount due for registration fees. Post-dated checks will not be accepted. There will be a $\$ 25.00$ charge for checks returned for any reason. Temporary checks are unacceptable. The Bursar's Office also accepts Visa, MasterCard, American Express and Discover.

## TUITION

In all colleges and schools of the University, except the Thurgood Marshall School of Law, each student who is a resident of the State of Texas is required to pay tuition at a rate of not less than $\$ 100.00$ per semester and $\$ 50.00$ for each summer term. A non-resident or foreign student is required to pay tuition per semester hour as set by the Texas Higher Education Coordinating Board.

## GENERAL USE FEE

A Building Use Fee of a prorated amount per semester hours is charged to all students. This fee is used to construct, equip, repair, and renovate buildings and facilities.

## STUDENT SERVICE FEE

The Student Service Fee is used to support certain extracurricular activities, such as student publications, special cultural programs, the marching band, and the athletic program. This fee also provides for general health counseling, minor medication, and treatment in the student Health Center. It does not include special medicines, dental care, treatment by specialists, or hospitalization. The amount of the fee depends on the number of credit hours for which the student is enrolled and is charged to all students enrolled at the University during a regular semester. This fee is non-refundable.

## STUDENT UNION FEE

The Student Center Fee is used for operating, maintaining, improving, and equipping the student center and acquiring or constructing additions to the student center. This fee is non-refundable.

## RECREATIONAL FACILITY FEE

The Board of regents of Texas Southern University may levy and collect a recreational facility fee from each student enrolled in Texas Southern University for the sole purpose of constructing, operating, maintaining and equipping a recreational facility or program at the institution. A fee collected under this section is in addition to any other use or service fee authorized to be levied. This fee is non-refundable.

## MEDICAL SERVICES FEE

The Board of Regents may levy and collect a medical service fee from each student enrolled in Texas Southern University for the sole purpose of operating, maintaining, improving, and equipping a medical service facility at the university, acquiring and constructing additions to the medical service facility, and providing medical services to students registered at the university. A fee collected under this section is in addition to any other use or service fee authorized to be levied. This fee is non-refundable.

## COMPUTER SERVICES FEE

A fee is assessed per semester to all students enrolled at the University to help support the provision of computer services to students. This fee is non-refundable.

## LATE REGISTRATION FEE

Failure to complete registration on the date specified will result in a late fee assessment. This fee is non-refundable.

## DROP/ADD FEE

A student making course change(s) after payment of initial tuition and fees will be charged for each change. This fee is nonrefundable.

## PROPERTY DEPOSIT FEE

All students are required to maintain a general property deposit of $\$ 7.00$ for damage to property in any university library, laboratory, or other facility. This deposit, fewer charges to defray the cost of damages, will be returned to the student upon request at the end of his or her career as a student. If a refund of the general property deposit fee is not requested within four years from the date of last attendance at the University, it will be forfeited and will become operative to the permanent use of the University for purposes authorized by the Board of Regents. This applies to deposits made in the past, as well as those to be made in the future.

## INSTALLMENT HANDLING FEES

Tuition and fees during the fall and spring semesters may be paid by one of two options:

1. Full payment of tuition and fees in advance of the beginning of the semester or
2. One-half payment of tuition and fees in advance of the beginning of the semester, one-fourth prior to the end of the sixth week, and one-fourth prior to the end of the twelfth week.
3. Students electing to pay their tuition and fees in the installment plan will be assessed a handling fee of $\$ 40.00$ for the three-payment plan. This fee is non-refundable.

## Required Residency Documentation

The Coordinating Board, Texas College and University System, requires Texas Southern University to document each student's residency. The following documents may be required indicating that the student has been living in the State of Texas for 12 months immediately prior to the date of registration.

1. Texas High School Transcript (showing attendance within last two years).
2. Permanent Driver's License (at least one year old).
3. Employer statement of date of employment (at least one year old).
4. Lease agreement which includes student's name (at least one year old).
5. Utility bill showing the student's name and address (at least one year old).
6. Combination of last two years' income tax returns.
7. Resident Alien card (if not a citizen of the United States).
8. Marriage License and birth records of child(ren), if any.
9. Statements from parents or guardians who are residents of the State of Texas.

Students who do not provide required documentation will be charged out-of-state tuition. Photocopies of the above items are required with the completed applications.

If there is a question of a student's legal residence status under State Law and University rules, it is the responsibility of the student to obtain an opinion from the Student Resident Status Advisor prior to registration. Any attempt on the part of a non-resident to evade the non-resident fee will be taken seriously and may lead to expulsion.

Non-resident students are given official notice of their non-resident classification at the time of admission. A student who is classified as a non-resident but who pays the resident fee at any subsequent registration after he or she has been officially advised in writing of non-resident status, will receive a penalty of loss of credit.

Auditing Fee. Persons desiring to audit a course are required to register (with permission of the Dean and Department Chair) and must pay all fees required of regular students enrolled for the equivalent number of credit hours.

## Student Records (transcripts) will not be released if:

1. All requested admission documents are not on file in the University Registrar's Student Record Vault.
2. Bills have not been cleared.
3. Transcript fee has not been paid.

The University reserves the right to adjust fees without prior notice. Tuition and regular fees paid by all students enrolled for 15 semester hours have been listed and are available through the Office of the University Comptroller. In addition to these, estimates of special laboratory fees and the cost of books and supplies must be added to arrive at an approximate total amount needed at registration.

All payments to the University should be made by Cashier's Check, Money Order, or personal check payable to Texas Southern University. Personal checks will not be accepted for any amount in excess of the total amount due for registration fees. Post-dated checks will not be accepted. There will be a $\$ 25.00$ charge for checks returned for any reason.

## Health Insurance

The University provides minimal health care for students. All residence hall occupants are required to be covered by hospitalization insurance. For students without such coverage, a student hospital, medical, and surgical insurance policy is available through the Student Health Center.

## Room and Board

Residence hall occupants will be required to sign a Housing-Food Service Contract for the entire academic year before being admitted to the facilities. The Housing-Food Services Contract is personal and may not be transferred or assigned to another person. Any violation will be subject to immediate disciplinary action. Room and Board Charges are assessed on an annual basis.

## REGULATIONS GOVERNING REFUNDS

## Dropped Courses

Any student who drops courses within the first twelve (12) days of a Fall or Spring semester or within the first four (4) days of a Summer term and remains enrolled in the University will receive refunds applicable to tuition paid for those courses.

## Withdrawals

Refunds for courses dropped during a Fall or Spring semester by a student who officially withdraws from the University are calculated according to the following percentage schedule:

- Prior to the first day $100 \%$
- During the first week of class $80 \%$
- During the second week of class $70 \%$
- During the third week of class $50 \%$
- During the fourth week of class $25 \%$
- After the fourth week of class $0 \%$

Refunds for courses dropped during a Summer term by a student who officially withdraws from the University are calculated according to the following percentage schedule:

- Prior to the first day $100 \%$
- During the first, second, or third class day $80 \%$
- During the fourth, fifth, or sixth class day $70 \%$
- Seventh day of class and thereafter $0 \%$

Checks for courses dropped will be disbursed in the Bursar's Office after the fourth week of class for the Fall and Spring semesters and after the second week of class for Summer terms. Refunds to financial aid recipients may vary. Parking refunds must be applied for separately through the Department of Public Safety at the University.

## Refund of Room and Board Fees

Dormitory residents are required to sign a Housing-Food Service Contract for the entire academic year. The University's policy concerning refunds associated with room and board fees is stated in the contract. Where refunds are applicable, application for such refunds must be made within one year after official withdrawal.

## Refund of Graduation Fees

Graduation fees cannot be transferred to another graduation period. Applications for refunds must be in accordance with the policy listed below.

The amount paid for the May diploma fee may be refunded if applied for in writing at the Bursar's Office prior to March 1. There will be no refunds after this date.

## Summer graduates have no refund grace period since orders are placed immediately upon receipt of their applications for graduation.

## Financial Obligations

No person who is indebted to the University in any amount will be permitted to graduate, receive transcripts (or grades), or re-enroll in the University.

## Laboratory Fees

Fees are assessed for studio and laboratory courses in the following academic disciplines: Art, Biology, Chemistry, Education, Human Services and Consumer Sciences, Music, Pharmacy, Human Performance, and Technology. The respective departments should be contacted for specific amounts.

## Admission/Readmission Fee

Students are required to pay an admission fee of $\$ 35.00$ for domestic applicants and $\$ 75.00$ for international applicants. This fee is used for costs associated with processing applications. For persons who have not been enrolled for a period of twelve (12) calendar months and who are seeking readmission, the fees stated above are applicable. A late fee may be charged for applications submitted after the deadline date.

## Transcript Fee

One transcript at each level, undergraduate and graduate, will be furnished without charge. Additional copies may be obtained for $\$ 3.00$ each. For "same day" service, a request must be received by $11: 00 \mathrm{a} . \mathrm{m}$. and a $\$ 5.00$ fee per transcript is required.

## Matriculation Fee

Students who are not enrolled and wish to take program related comprehensive examinations must pay a matriculation fee of $\$ 100$.

## Graduation Fees

Graduation fees are due and payable at the time of application for graduation. These fees include the cost of the diploma and binding of thesis or dissertation where applicable. Invitations are optional and may be ordered through the University Bookstore prior to April 15. Caps and gowns are also ordered through the University Bookstore.

|  | Doctoral | Master's |
| :--- | :---: | :---: |
| Microfilm | $\$ 50.00$ | N/A |
| Binding Fee | 49.50 | $\$ 15.00$ |
| Postage \& Handling | 14.00 | N/A |
| Diploma Fee | $\underline{16.50}$ | $\underline{15.00}$ |
|  | $\$ 130.00$ | $\$ 30.00$ |

## TYPES OF FINANCIAL ASSISTANCE

## FINANCIAL AID

The Office of Financial Aid makes every effort to insure that all awards and materials submitted remain confidential in accordance with the Buckley Family Right to Privacy Act of 1975.

## Financial Assistance Application Process

Steps in the financial assistance process:

- Step 1 Apply for Admission to TSU
- $\quad$ Step 2 Complete the Free Application for Federal Student Aid (FAFSA)*
- Step 3 Complete all scholarship applications by the priority date
- Step 4 Transfer students must request a Financial Aid Transcript (FAT) from the previous schools attended
*Renewal FAFSAs are mailed to continuing Financial Aid Applicants. Electronic FAFSAs are accessible through: http:// www.fafsa.ed.gov/. The TSU federal school code is $\mathbf{0 0 3 6 4 2}$. If you prefer to file a paper FAFSA but cannot visit our office in person, you may request an information packet.

Priority Dates Some student aid funds are limited and the demand is usually greater than funds available. Priority status is given to students who apply by the priority date. File the FAFSA by April 15 in order to meet the priority deadline:

- Fall \& Spring - April 1
- Fall Only - April 1
- Spring - April 1
- Summer - April 1

Federal, State, and University funds provide four types of Financial Aid: Grants are need-based funds and do not have to be repaid. Loans must be repaid with interest, usually after graduating or withdrawing from college. Scholarships are awarded based on grades and other achievements, and may or may not be need-based. Work-study money is need-based and is earned through part-time employment.

Late applications processed after these dates will be processed as time and volume permit. Late applicants should be prepared to meet initial down payment at registration and pay applicable service charges while waiting for financial aid to be processed.

What Happens Next? Watch For Your FAFSA Results - After you have submitted your FAFSA, you will receive a Student Aid Report (SAR) in approximately 4 to 6 weeks. If you have not received a Student Aid Report (SAR) in 4 to 6 weeks, call the Federal Processor at 1-800-4-FED AID (1-800-433-3243) to determine the status of your FAFSA. The SAR is for the student's records. Texas Southern University must be listed on the FAFSA for the Office of Student Financial Assistance to receive the information electronically.

Review Your Student Aid Report (SAR) - Some Student Aid Reports are rejected due to missing signatures or missing information. Review your SAR closely for any corrections that are required. Make the necessary corrections and/or submit the required signatures and return the SAR to the federal processor. Corrections to the SAR are returned to the student in approximately 3 to 4 weeks. Corrections other than signatures may be made in the TSU financial aid office or by sending SAR correction pages to the federal processor.

Respond to All Requests for Additional Documents and Information - Examples of things that you might be asked to supply are your and your parents' Federal Income Tax Returns, Verification Worksheets, proof of citizenship, etc. No financial aid can be awarded until all required information and documents have been received and verification is completed. All documents accepted by the Office of Student Financial Assistance must be completed and have the required signatures. Incomplete documents are not accepted and will be returned to the student.

Respond to the Financial Aid Award Notification You Receive from the Office of Student Financial Assistance - This document shows grants, scholarships, loans, and work study offered. You may accept or decline each award offered, sign the notification and send it back to the Office of Student Financial Assistance. You do not need to return the notification unless you are declining an award.

Complete a Loan Application - If you are eligible for a loan you must fill out the Student Loan Application and send it back to the Office of Student Financial Assistance. Parents may complete an additional Parent Loan Application (PLUS Loan) upon request.

The actual promissory note will be mailed to you by your lender. You are responsible for providing two (2) references and signing the form. Return the promissory note to your lender so your Federal Family Education Loan Program (FFELP) can be processed and loan funds sent to Texas Southern University.

## Change of Status

All students receiving any form of financial assistance must have a personal interview with a representative of the Financial Aid Office in order to drop a course or withdraw from the University. Failure to do so may jeopardize a student's opportunity for subsequent financial assistance. Graduating seniors are required to have an exit interview with a representative of the Financial Aid Office.

## Revocation of Financial Aid

The Office of Financial Aid reserves the right to review and revoke aid awarded if the applicant:

1. fails to maintain satisfactory progress toward his/her degree and/or is required to withdraw from school.
2. falsifies information reported.
3. misuses funds awarded.
4. experiences positive changes, such as an increased income, in his/her family's financial situation.

## TYPES OF FINANCIAL ASSISTANCE

For additional financial aid information for graduate students. please contact the Financial Aid Office.

## Post Baccalaureate Eligibility

A post baccalaureate student is one who has already earned a bachelor's degree, but who is working toward completion of an upper level degree or toward the completion of some type of certification. A post baccalaureate student who complies with satisfactory academic progress rules qualifies for financial aid eligibility consideration.

## CHECK DISBURSEMENT

All financial aid checks are issued from the Bursar's Office; however, students who are awarded financial aid through the Financial Aid Office should stay in contact with that office regarding disbursement of funds. Funds will not be disbursed to students indebted to the University.



## GRADUATE FACULTY

ABDEL-RAHMAN, FAWZIA D. Professor of Biology
B.Sc., University of Cairo -Egypt; M.Sc., University of California-Davis
Ph.D., University of California-Davis
ABOBO, CYRIL V. Associate Professor of Pharmacy
B.S., Texas Southern University; Pharm.D., Florida A\&M University
ADAMS, DANIEL C.Professor of Fine Arts
B.M., Louisiana State University; M.M., University of MiamiD.M.A., University of Illinois at Urbana-Charnpaign
AFIESIMAMA, BOMA T. Associate Professor of Technology
B.S., University of Michigan; M.Eng., D.Eng., Texas A\&M University
AGBANOBI, RAYMOND 0. Professor of Technology
B.S., Willesden College; M.S., University of Missouri; Ph.D., North Carolina State University
AHMED, SELINA M. ..... Associate Professor of Human Services \&
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AKALOU, WOLDE-MICHAEL Professor of HistoryB.A., University College of Addis Ababa;M.A., Ph.D., University of California at Los Angeles
AKPAFFIONG, MACAULAY J. Professor of Pharmacy
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Pharm.D., University of Southern California
AKPAN, AKPAN Associate Professor of Public Affairs
B.A., Lincoln University; M.A., University of Pennsylvania;Ph.D., Rensselaer Polytechnic Institute
ALLEN, MITCHELL M. Professor of Technology
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ALLMAN, SYBIL A. Professor of Education
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BEETH, HOWARD 0. Professor of HistoryB.A, M.A., Temple University; Ph.D., University of Houston
BELCHER, LEON H. Professor of Psychology
B.S., M.A., University of Arkansas; Ph.D., University of Northern Colorado
BELL, DELLA D. Professor of Mathematics
B.S., Lamar University; M.Ed., Ph.D., University of Texas at Austin
BRAUD, LENDELL Professor of Psychology
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## The Graduate School

## GENERAL INFORMATION

The Graduate School is one of the original academic units included in the organization of Texas Southern University when it was established as a State University in 1947. Initially, graduate degrees were offered in the arts, sciences and teacher education. Currently, graduate degrees, including the Doctor of Education and Doctor of Philosophy in Environmental Toxicology, are offered in more than thirty academic disciplines.

## GOALS AND OBJECTIVES

The Graduate School's major goal is that of providing an environment which supports the enhancement of research, teaching and other scholarly pursuits for students seeking advanced degrees in specialized academic disciplines. Through graduate study, a high level of scholarship is encouraged and the qualities of industry, intellectual honesty, thoroughness and accuracy are emphasized by the involvement of students in courses, seminars, independent study and research. Graduate degree programs are structured to enable students to obtain education and training in specialized academic subjects. Through these experiences graduates are prepared who can provide leadership and expertise to meet the needs and demands of our democratic society.

Within the context of these goals the graduate program of the University seeks to provide an environment in which the pursuit and love of learning is nourished and enhanced to the maximum extent. The major objectives of the Graduate School are:

1. To provide advanced programs of study in specialized academic disciplines.
2. To provide students with a knowledge of the concepts and techniques for scholarly research.
3. To teach students to anticipate consequences and assay the validity of assumptions.
4. To prepare students to synthesize the essence of knowledge drawn from several related courses in an academic discipline.
5. To train students in the techniques of problem solving through the use of systematic analysis.
6. To prepare students to become creative contributors to the advancement of knowledge and to the well-being of society.

The objectives of the Graduate School are undergirded by a commitment to intellectual honesty, thoroughness, and accuracy. These virtues are emphasized by the University and apply to faculty and student involvement in courses, seminars, independent study and research. Graduate degree programs are structured to enable students to obtain specialized as well as inter- disciplinary training in the various academic departments.

Through legislative mandate, the University and the Graduate School are committed to the development of programs and services that enable students and faculty to study the complex urban milieu and to render service to the urban community. Therefore, an overall goal of the Graduate School is to develop highly trained graduates for service in the public and private sectors with a knowledge of and interest in providing leadership and expertise in the solution of urban problems.

The policies governing admissions and the requirements for qualifying for professional certificates and degrees have been formulated to attract students who have the potential for achieving maximum benefits through an involvement in the graduate program. The ultimate aim is to develop an intellectually-oriented individual who appreciates his/her culture and is capable of achieving social, political and economic security as the result of being involved in the graduate program of Texas Southern University.

## ORGANIZATION

The Graduate School is organized as an integral unit of the University and has a direct line relationship with the Office of Academic Affairs. The faculty members of the Graduate School are drawn from other component academic units at the University and are responsible for instruction, research and student academic advisement. All graduate programs are administered by the Dean of the Graduate School on the basis of policies and regulations established by the Graduate Council.

The Graduate Council is a standing committee of the University and includes faculty, students and administrative representatives from academic units of the University that have graduate programs. Each unit including the library and registrar's office has one representative on the Council. Two students are included in the Council membership. Department heads and deans are ex-officio. The Dean of the Graduate School is the Chairman of the Council.

Each academic department has faculty members who serve as academic advisers to graduate students. In some departments a graduate coordinator has been named. All graduate advisers function under the policies and regulations approved by the Graduate Council. Department chairpersons recommend faculty for graduate status and students for assistantships and scholarships. Each department reviews applications for admission to its major degree programs and recommends students for admission to the Graduate School. Final action on applications for admission is taken by the Dean of the Graduate School.

## FACULTY

The faculty of the Graduate School consists of persons who have been approved for graduate faculty status by the Graduate Council and includes three categories, regular, associate, and special faculty. Regular faculty members are approved for five year periods while associate faculty are approved every three years and special faculty must be approved each year. Approximately $85 \%$ of the graduate faculty hold the doctorate. Most graduate faculty members have had more than five years of college level teaching experience and have published scholarly books and papers in leading journals. Some are engaged in research projects supported by federal, state or private grants.

## STUDENTS

The student population is ethnically diverse and includes persons from most of the states in the United States. A relatively large corps of international students also matriculates in the Graduate School.

## RESEARCH

The graduate faculty is involved in a diversity of research projects funded by federal, state and private grants. Many of the research problems deal with urban and instructional issues. These research activities have resulted in publications in various scholarly journals; some books have been written also. The Graduate School publishes documents entitled Graduate Student Research, University Research Journal, Faculty Research News, and also a newsletter, Graduate School News. Dissertations are recorded by University Microfilms International and abstracts of dissertations are published in Dissertation Abstracts International. Faculty research activities are reported also through the Faculty Research Listing and Faculty Resources Booklet.

## DEGREES

The Graduate School offers degrees at the master's and doctoral levels. Master's degree offerings are as follows: Master of Arts, Master of Business Administration, Master of City Planning, Master of Education, Master of Public Administration, Master of Science, Master of Science in Transportation. Doctoral degrees offered through the Graduate School consist of the Doctor of Education with concentrations in Curriculum and Instruction, Counselor Education, Educational Administration, and the Doctor of Philosophy degree in Environmental Toxicology.

## PROGRAMS OF STUDY

Graduate students can select majors in the following academic fields: in Liberal Arts, majors are offered in music, English, history, speech communication, journalism, telecommunications, human services and consumer sciences, psychology, public administration, city planning, and sociology; in Education, major programs are offered in administration and supervision, curriculum and instruction, secondary education, counseling, health and human performance; in Business, majors are offered in accounting and general business; in Science and Technology, a graduate major is offered in biology, chemistry, mathematics, environmental toxicology, industrial technology and transportation.

The master's degree may be earned by following either one or two plans: Plan A - with the thesis or Plan B - without the thesis. In some departments the preparation of an approved thesis is a mandatory requirement. The department in which the student is majoring should be consulted and the student should indicate which plan is to be followed at the time of matriculation. (See respective department programs for the details of Plan A and Plan B)

The completion of an approved dissertation is required for the Doctor of Education degree and the Doctor of Philosophy degree.

Each student should complete a degree plan during the first semester of enrollment through consultation with the chairperson of the department.

## ACCREDITATION AND MEMBERSHIPS

Texas Southern University is accredited by the Commission on Colleges, Southern Association of Colleges and Schools. The University holds membership in various organizations including the Council of Graduate Schools, the Texas Association of Graduate Schools, the American Council on Education, the Association of American Universities, the Conference of Southern Graduate Schools, the Council of Historically Black Graduate Schools, and the American Association of Colleges for Teacher Education. The teacher education program is approved by the Texas Education Agency.

## GENERAL REGULATIONS

Each graduate student is expected to be familiar with the regulations of the Graduate School, the calendar of events, and the requirements for degrees. It is the responsibility of the graduate student to comply with the regulations and requirements of the Graduate School as stated in the graduate bulletin and in other official documents.

## ADMISSION REQUIREMENTS

## ADMISSIONS PROGRAM ADMINISTRATION

Applications for admission to all graduate degree programs of the University are processed through the Graduate School of the University. All applications are reviewed by the Graduate Admissions Committee within the major department and the decisions of the Committee are referred to the Dean of the Graduate School.

Persons interested in applying for admission to the Graduate School should write directly to the Office of the Graduate School.

## PROCEDURES AND REGULATIONS

Application for admission is made on a regular form, which will be sent upon request.
All applicants must request the registrars of institutions previously attended to forward two official transcripts to the Graduate School of Texas Southern University. These transcripts must be received from each institution in which the applicant has previously enrolled before action will be taken on the application.

For foreign students, a score of at least 500 on the Test of English as a Foreign Language (TOEFL) or an equivalent score from an approved English as a Second Language (ESL) program is required.

The applicant's official credentials, including completed application form and transcripts of previous work must be on file in the Office of the Graduate School at least four weeks before the date of registration.

## TYPES OF ADMISSION

An applicant who is unconditionally admitted to the Graduate School is immediately eligible to pursue a program of study leading to the Master's degree, the doctorate, or the professional certificate. Each applicant should choose a field of specialization and work out a degree plan in consultation with his/her adviser.

Applicants who are admitted to the Graduate School on condition fall into three categories -- graduates of unaccredited colleges or universities, applicants with scholarship deficiencies and those with an unsatisfactory undergraduate sequence for the major area.

## SPECIAL STUDENT

Three categories of students may register as "Special Student:" (1) those students who do not wish to become applicants or candidates for a master's degree, (2) those students who do not completely qualify for admission as "Degree Applicants," and (3) those students who because of low quality of performance are removed from the status of "Degree Applicants."

Special students in the first category are not required to name a field of specialization. They may select any course for which they have satisfactory preparation and which will serve their purpose in attending the University.

Special students who have voluntarily selected this status (Category 1) and who later desire to become degree applicants must comply with all admission requirements and have their credits earned as special students reviewed to determine if the
credits can be applied toward the degree sought. The student may find that some or all of the credits earned as a special student may not count toward the degree sought.

## SENIORS IN GRADUATE COURSES

A senior at Texas Southern University who has demonstrated superior scholastic ability and who needs less than ten semester hours to complete the bachelor's degree, may be permitted to take graduate courses. Requests from seniors for permission to take graduate courses must be approved by the head of the major department, the dean of the undergraduate college, and the Dean of the Graduate School.

Permission to take graduate courses during the senior year does not constitute admission to the Graduate School. Moreover, such credits may not be applied toward fulfilment of the residence requirement for the master's degree. Not more than six (6) semester hours of graduate course work may be taken by seniors.

## READMISSION

A student who discontinues matriculation in the Graduate School for one or more semesters must apply for re-admission. The evaluation of applications for re-admission will be based on University and specific program admission requirements in existence at the time of the re-admission application.

## CRITERIA FOR ADMISSION TO MASTER'S DEGREE PROGRAMS

## UNCONDITIONAL ADMISSION

For unconditional admission to the Graduate School as a Degree Applicant, the applicant must meet all of the following conditions:

1. Graduation with the bachelor's degree, or its equivalent, from an accredited college or university. An example of the "equivalent," as indicated above may be an international student who has graduated from a college or university that issues a diploma or certificate instead of a degree.
2. A satisfactory undergraduate sequence of courses in the proposed major.
3. A grade point average in all undergraduate work of $2.50(\mathrm{C}+)$ or better or a grade point average of 3.0 on the last 60 semester hours of undergraduate course work.
4. A score on the aptitude section of the Graduate Record Examination that will be used in conjunction with other admission factors.
5. A score of at least 500 on the TOEFL, if the applicant is an international student.

## CONDITIONAL ADMISSION

Conditional admission to master's degree programs may be permitted for those applicants who do not satisfy all of the requirements for unconditional admission. Final disposition of cases involving students who have been admitted on condition rests with the Committee on Admissions and the Dean of the Graduate School.

## CRITERIA FOR ADMISSION TO SPECIFIC DEGREE PROGRAMS

## Master of Business Administration (MBA) Program

Admission to the MBA program as a conditional or an unconditional student requires a baccalaureate degree from a regionally accredited institution.

Unconditional Admission: The applicant must submit a Graduate Management Aptitude Test (GMAT) score that will be used in conjunction with the applicant's socioeconomic profile and the undergraduate grade point average to determine admission to graduate programs. The following are some factors that may be included in the sociocconomic profile used in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.

1. The applicant's performance during a personal interview.

Conditional Admission: The student must have at least a 3.00 undergraduate grade point average or the undergraduate grade point average on the last sixty (60) hours of course work must be at least 3.25 . Students admitted in this category will be required to meet the unconditional admission criteria by the end of their first semester of enrollment. Failure to do so will result in the student being dropped from the program.

## Master of Education Degree Program

Applicant must meet all of the following requirements:

## Unconditional Admission:

1. Graduation with the bachelor's degree, or its equivalent, from an accredited college or university. An example of the "equivalent," as indicated above, may be a foreign student who has graduated from a college or university that issues a diploma or certificate instead of a degree.
2. A satisfactory undergraduate sequence of courses in the proposed major.
3. The applicant must submit a Graduate Record Examination (GRE) score that will be used in conjunction with the applicant's socioeconomic profile and the undergraduate grade point average to determine admission to graduate programs. The following are some factors that may be included in the socioeconomic profile used in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
4. The applicant's performance during a personal interview.
5. A score of at least 500 on the TOEFL, if the applicant is a foreign student.

## Conditional Admission:

1. Graduation with the bachelor's degree, or its equivalent, from an accredited college or university. An example of the "equivalent," as indicated above, may be a foreign student who graduated from a college or university that issues a diploma or certificate instead of a degree.
2. A satisfactory undergraduate sequence of courses in the proposed major.
3. The applicant must submit a Graduate Record Examination (GRE) score (combined verbal and quantitative) that will be used in conjunction with the applicant's socioeconomic profile and the undergraduate grade point
average to determine admission to graduate programs. The following are some factors that may be included in the socioeconomic profile used in the admission process.
e. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
4. The applicant's performance during a personal interview.
5. A score of at least 500 on the TOEFL, if the applicant is a foreign student.

## CRITERIA FOR ADMISSION TO DOCTORAL DEGREE PROGRAMS

## DOCTOR OF EDUCATION DEGREE

The policies governing admission to the Doctor of Education degree program are as follows:

1. Student must apply for admission to the doctoral program through the Graduate School by filing the appropriate application forms in the Graduate Office and meet the admission requirements of the Graduate School.
2. Completed applications in the major area are reviewed by the Doctoral Admissions Committee in the major area and the names of applicants recommended for admission are submitted to the Graduate School.
3. Upon approval of the Dean of the Graduate School, applicants are notified of the action taken on the application.

The criteria for admission to the Doctor of Education degree program are:
A. Category One - Unconditional Admission - The applicant must submit a Graduate Record Examination (GRE) score (combined verbal and quantitative) that will be used in conjunction with the applicant's socioeconomic profile and the undergraduate grade point average to determine admission to graduate programs.

In addition, the applicant must meet all of the following requirements:

1. Have an earned master's degree or its equivalent in a degree program with a grade point average of at least 3.33 ( $\mathrm{B}+$ ) from an accredited institution of higher education.
2. Hold or earn, before completing the program, a teaching or administrative certificate, unless the area in which the individual specializes does not require certification.
3. Have a minimum of two (2) years of successful professional experience in teaching, administration, supervision, counseling or other career service, for example, personnel in business and industry, counselor, etc.
4. Submit recommendations from at least five persons including two (2) college faculty members in the applicant's most recent academic program and at least one (1) immediate supervisor of the applicant's professional work.
5. Demonstrate acceptable proficiency in the use of the English language based upon performance on a standardized English Proficiency Test. (Performance on the Verbal portion of the GRE may be considered as adequate by the Doctoral Admission Committee.)
6. Have a personal interview with the department head and faculty in the area of the planned concentration.
7. Make a score of at least 500 on the TOEFL, if the applicant is a foreign student.

The following are some factors that may be included in the socioeconomic profile used in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.

1. The applicant's performance during a personal interview.
B. Category Two - Conditional Admission - The applicant must submit a Graduate Record Examination (GRE) score (combined verbal and quantitative) that will be used in conjunction with the applicant's sociocconomic profile and the undergraduate grade point average to determine admission to graduate programs.

In addition, the following are required:

1. Have an earned master's degree or its equivalent in a degree program from an accredited institution of higher learning.
2. Hold or earn, before completing the program, a teaching or administrative certificate, unless the area in which the individual specializes does not require certification.
3. Have a minimum of two (2) years of successful professional experience in teaching, administration, supervision, counseling or other career service, for example, personnel in business and industry, counselor, etc.
4. Submit recommendations from at least five persons including two (2) college faculty members in the applicant's most recent academic program and at least one (1) immediate supervisor of the applicant's professional work.
5. Demonstrate acceptable proficiency in the use of the English language based upon performance on a standardized English Proficiency Test. (Performance on the Verbal portion of the GRE may be considered as adequate by the Doctoral Admission Committee.)
6. Have a personal interview with the department head and faculty in the area of the planned concentration.
7. Make a score of at least 500 on the TOEFL, if the applicant is a foreign student.

The following are some factors that may be included in the socioeconomic profile used in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.

1. The applicant's performance during a personal interview.

# ADMISSION CRITERIA <br> Doctor of Philosophy Degree <br> Environmental Toxicology 

## DOCTOR OF PHILOSOPHY DEGREE

The admission criteria for applicants to the Doctor of Philosophy Degree Program in Environmental Toxicology are summarized below:

1. Applicants for admission to the Ph.D. degree program in environmental toxicology must meet the requirements for admission to the Graduate School. To be considered, the applicant must have earned the Bachelor's degree in an appropriate field of the natural sciences or in an equivalent discipline acceptable to the admissions committee.
2. Applicants who have earned the Master's degree must have a cumulative 3.3 grade point average in graduate work.
3. Applicants must present a Graduate Record Examination (GRE) scores (combined verbal and quantitative) which are considered along with the applicant's undergraduate grade point. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
4. The applicant's performance during a personal interview.
5. Demonstrate acceptable proficiency in the use of the English language based upon performance on a standardized English Proficiency Test. (Performance on the verbal portion of the GRE may be considered as adequate by the Admissions Committee.)
6. Have a personal interview with the Department Chair and faculty members in the area of the planned academic concentration.
7. International applicants, in addition to the above requirements, must present a TOEFL score of at least 550 or appropriate evidence of proficiency in the English language.
8. The formal application must include the following:
a. A completed application form and a non-refundable application fee.
b. At least three recommendations from persons qualified to give an evaluation of the applicant's past scholastic performance, research and scientific abilities and personal motivation.
c. An official transcript of credits earned at all colleges and/or universities attended by the applicant.
d. Scores from the Graduate Record Examination (General Test and one Advanced Test, in either Biology or Chemistry). In addition, international applicants must provide TOEFL scores.

## RESPONSIBILITY FOR ADMISSION

The recommendation for admission will be made by the Doctoral Admissions Committee. Recommendations of the Doctoral Admissions Committee are submitted to the Dean of the Graduate School for final action.

## ADMISSION OF UNIVERSITY FACULTY AND STAFF

Admission of full-time faculty members at Texas Southern University who do not hold the doctorate degree and who wish to study for the doctorate degree at Texas Southern University will be subject to the decision of the Doctoral Admissions Committee, the appropriate Dean, the Dean of the Graduate School, and the Provost and Senior Vice President for Academic Affairs.

## REQUIREMENTS FOR COMPLETION OF THE MASTER'S DEGREE

## Master of Education Degree and/or The Professional Certificate

1. Achieve unconditional admission status.
2. File a degree plan or a professional certificate plan in the Graduate School Office.
3. Demonstrate proficiency in English, either by examination or by passing the course, English 501.
4. Be admitted to candidacy for the degree or for the professional certificate.
5. Earn the required semester hours with at least a 3.0 average. (See departmental sections for semester hour requirements.)
6. Pass the comprehensive examination.
7. Write a satisfactory thesis under Plan A, or complete 36 or 48 acceptable hours under Plan B (See departmental requirements.)
8. Complete internship, if required.
9. Apply for graduation.

Detailed information pertaining to these requirements, along with other information of importance to the graduate student, is given later in this section of the bulletin.

In addition to the above, students requesting a professional teacher's certificate, the superintendent's certificate, or other administrative certificates, will be required to achieve a satisfactory level of performance on an examination prescribed by the State Board of Education.

## Master of Arts and Master of Science

Applicants for the Master of Arts and Master of science degrees must meet the following requirements:

1. Achieve unconditional admission status
2. File a degree plan in the Graduate School Office
3. Demonstrate proficiency in English, either by examination or by passing the course English 501.
4. Pass the foreign language examination (if required).
5. Pass the qualifying examination in the major area, where it is required, or satisfy resulting requirements of the major department.
6. Be admitted to candidacy for the degree.
7. Earn the required semester hours with at least a 3.0 grade point average. (See departmental sections for semester hour requirements.)
8. Pass the comprehensive examination.
9. Write a satisfactory thesis or research paper, where required. (See departmental requirements).
10. Apply for graduation.

## SPECIAL REQUIREMENTS

For special requirements for the Master of Business Administration, Master of City Planning and Master of Public Administration, see requirements in sections of this bulletin under programs in Business and Liberal Arts.

## ADVISORS AND DEGREE PLAN

At the time of matriculation, the student will be assigned to a program advisor who will have general supervision of the student's graduate work. The advisor will assist the student in filling out the Degree Plan, an approved copy of which must be filed in the Graduate Office by the end of the student's first semester of matriculation at Texas Southern University. When a student enrolls for courses, his or her program must have the written approval of the advisor. The chairperson of the department serves as the general advisor for students in the department and should be consulted prior to the submission of the degree plan to the Graduate School. The Graduate School also provides advisory services to students.

Students who take courses without the approval of their advisors do so at their own risk and may not be permitted to include them in their degree or professional certificate plans.

## THESIS PROPOSAL

Students whose degree plan include the preparation of a thesis must first prepare an acceptable thesis proposal. After the thesis proposal has been approved, the student can then begin work on the thesis.

## MASTER'S THESIS STANDARD AND PURPOSE

The master's thesis will consist of an intensive study of a subject related to the candidate's major field of concentration and may be of a research, expository, or critical nature. Its main purpose is to encourage the student to use independently and constructively the information, skills, and knowledge with which he or she has become acquainted. The thesis should give evidence of a thorough study of original sources. It should contain a complete bibliography of such sources and proper citation of them in the text, with footnotes giving exact references. The standard of form, organization, and expression should be in accordance with the format approved by the Graduate Council. Students may obtain a copy of the thesis guidelines from the Graduate School Office.

## THESIS ADVISOR

After being admitted to candidacy, each candidate for a degree will have a thesis advisor (where applicable) appointed by the chairperson of the major department. The thesis advisor is responsible for advising the student on matters related to the preparation of the thesis.

After the thesis topic has been selected by the student in consultation with his/her advisor, a thesis examining committee of at least three graduate faculty members will be established. The Graduate Dean will also appoint another graduate faculty member from outside the department to the committee. The completed thesis must be approved by the advisor of the thesis, the thesis committee and the Graduate Dean.

## RESIDENCE REQUIREMENT

A residence of at least one academic year or its equivalent is required.

## ADMISSION TO MASTER'S DEGREE CANDIDACY

Admission to study in the Graduate School does not imply acceptance as a candidate for a degree. To become a candidate for the master's degree or for a professional certificate, the student must have satisfactorily completed all admission requirements, have an approved degree plan, satisfied the English Proficiency requirement, the foreign language, if required, the qualifying examination, if required, at least twelve semester hours of graduate work and be recommended to candidacy by the advisor and head of the major department.

## TRANSFER OF CREDIT

A student wishing to secure credit toward a master's degree or professional certificate at Texas Southern University for courses taken at another institution must make application to the Dean of the Graduate School. Approved courses are entered on the student's record in the Registrar's Office. Credits transferred from approved extension schools and/or from another institution may not exceed six semester hours and must be graduate credits and have a grade of "B" $(3.00)$ or better.

Transfer work from other institutions will not be used in computing the quality point average for graduation or certification.

No graduate credit will be given for work done by correspondence or for work taken to satisfy degree requirements in a program for which a degree has already been awarded.

## WORKSHOP CREDIT

Not more than six semester hours of approved graduate workshop credit may be counted toward the semester hours required for a degree or professional certificate.

## EXAMINATIONS FOR MASTER'S DEGREE STUDENTS

## ENGLISH PROFICIENCY EXAMINATION

Each student who is admitted to a graduate degree or certificate program must satisfy the English proficiency requirement of the Graduate School by passing the English Proficiency Examination or the English 501 course. The student will be permitted to satisfy the requirement by examination, if the English Proficiency Examination is taken and passed during the first term or semester of the student's enrollment; otherwise, the student must pass English 501.

Students scoring at least 550 on the Verbal Section of the Graduate Record Examination may be exempted from the English Proficiency requirement.

## FOREIGN LANGUAGE EXAMINATION

The passing of a reading examination in one foreign language is required of degree applicants in those departments requiring a language. English is considered as a foreign language for foreign students who received their pre-college and college education in a non-English language.

## COMPREHENSIVE EXAMINATION

Each degree or certificate applicant is required to pass a comprehensive examination, either oral or written ( or both), except for students seeking the Master of Business Administration degree.

## TIME LIMIT FOR THE MASTER'S DEGREE

Credits earned more than six years prior to the date of completion of master's degree requirements at Texas Southern University cannot be accepted toward the satisfaction of master's degree requirements. All courses which are submitted to satisfy the semester-hour requirement for the master's degree or the professional certificate in a program requiring 30 to 36 semester hours must have been taken within a six-year period from the date of initial admission to the Graduate School. All programs in excess of 36 semester hours will have a seven-year limit from the end of the academic or session or semester in which the student first enrolled. This applies to residence, extension, and transfer work including work in the major and minor area. Courses that fall beyond the time limit must be repeated.

## REQUIREMENTS FOR COMPLETION OF DOCTORAL DEGREES

## DOCTOR OF EDUCATION DEGREE

To receive the degree, the student must:

1. Be admitted unconditionally to the Doctor of Education degree program.
2. Satisfy residency requirement for two consecutive semesters of full-time residence or an approved equivalency.
3. In addition to the two years of professional experience required for admission, meet the internship requirement of two consecutive semesters. if required in the degree program.
4. Satisfy the special course and research requirements for the degree program including at least forty-eight (48) semester hours of doctoral level course work within the 60 -hour minimum doctoral program requirement.
5. Pass the comprehensive examination.
6. Be admitted to candidacy for the doctorate degree.
7. Prepare an acceptable abstract, proposal and dissertation.
8. Pass a final oral examination. The oral examination will be a defense of the doctoral dissertation and other topics that may be designated by the Dissertation Committee.
9. Present three approved copies of the doctoral dissertation in final form and three copies of the abstract to the Graduate Office.
10. Apply for graduation.

All dissertations will be microfilmed by University Microfilms. Inc. and the student must pay the microfilming fee which provides for microfilming of the complete dissertation and for publication of an abstract not to exceed 350 words. The original and one copy of the dissertation are placed in the University Library. The other copy is sent to the College of Education.

## ADVISORY COMMITTEE

When the applicant is admitted to the Doctor of Education degree program. he/she is assigned a course work advisor and an advisory committee; together they prepare a degree plan which must be approved by the College of Education and the Graduate School. The degree plan should be filed not later than the end of the first semester after the student enrolls in the Doctoral Program.

## DISSERTATION ADVISOR

The dissertation advisor is recommended to the Dean of the Graduate School by the department chairperson. Generally, the course advisor will also serve as the dissertation advisor. However, depending upon the field of concentration and/or the area of the dissertation research, a different advisor may be appointed.

In cases when the candidate's topic requires expertise in an area outside the field of education, a committee member from the particular area will be appointed. It will be the responsibility of the candidate to recommend a faculty member to serve in this role and secure the approval of the appropriate official as indicated on the forms designed for this purpose. In secondary education, one member of the dissertation committee must be from the subject matter area of specialization.

## DISSERTATION COMMITTEE

After achieving candidacy the advisor in consultation with the candidate will recommend the dissertation committee to the Dean of the Graduate School; the committee will consist of at least three graduate faculty members, including the dissertation advisor who will serve as chairman. In addition, the Dean of the Graduate School will appoint a Graduate School representative to the committee. When the proposal has been approved, the candidate will prepare a dissertation and make an oral defense to the committee. The dissertation must be approved by all members of the dissertation committee. The defense of the dissertation is open to all members of the graduate faculty.

## DISSERTATION

The Ed.D. is primarily a research degree and the student is expected to demonstrate the ability to design a research project, to implement it, contribute new knowledge to the field of study and write an acceptable dissertation. The dissertation topic and the nature and extent of the research will be recommended by the student and his/her adviser for approval by the dissertation committee. The format of the dissertation, described in a booklet from the Graduate Office, must be followed. The dissertation must be defended before the committee in an oral examination. Certification of successful completion of the Oral Examination requires the signature of all members of the dissertation committee. A student who fails the final oral examination on the dissertation may petition the Dean of the Graduate School through the department for a second attempt to pass the examination. The second attempt cannot be made until at least one semester has passed since the first attempt.

## RESIDENCE REQUIREMENT

The residency requirement may be met by one of the following:

1. A course load of $9-12$ semester hours taken in a regular semester immediately preceding or following full-time enrollment in each of the two summer terms.
2. A course load of at least 9 semester hours in a regular semester immediately preceding or following fulltime enrollment in each of the two summer terms. The regular semester course load to include enrollment in the doctoral internship.
3. A course load of 6 semester hours in a regular semester immediately preceded or followed by full-time enrollment in both summer terms. The regular semester course load to be supplemented by a planned, approved activity deemed to be equivalent to resident study.
4. Enrollment for 9-12 semester hours in two consecutive semesters.

## ADMISSION TO CANDIDACY

The doctoral student must satisfy the following requirements before he/she can be admitted to candidacy for the degree:

1. Be admitted unconditionally to the Doctor of Education degree program.
2. Satisfy the residency requirement of two consecutive semesters of full-time residence or an approved equivalency.
3. In addition to the two years of professional experience required for admission, meet the internship requirements of two consecutive semesters, if required in the degree program.
4. Satisfy the special course requirements for the degree program in which he or she enrolled, including at least forty-eight (48) semester hours of doctoral level course work within the 60 -hour minimum doctoral program requirement.
5. Pass the doctoral comprehensive examination.

## EXAMINATIONS FOR DOCTORAL DEGREE STUDENTS

## COMPREHENSIVE EXAMINATION

A comprehensive examination is taken by the candidate toward the end of the course work program. The comprehensive examination shall consist of at least four parts-a test in the major area and, if required, also in the minor area and tests in

Foundations of Education, Research, and Statistics. The test must be judged a "pass" by the examination committee in order that the candidate may be recommended to candidacy for the degree.

Each part of the examination will be graded by at least two readers. Both readers must agree on at least a "pass" rating for a "pass" evaluation. For an "honors" rating both readers must give the "honors" rating. If one reader gives a "fail" rating and the other gives a "pass" rating, then a third reader will be used. The student must take all four parts of the examination when taken for the first time.

During each subsequent examination, if needed, a student must take a test in all sections of the examination he/she failed to pass in the preceding attempt.

A doctoral student who fails the comprehensive examination the second time may petition for a third examination and the petition must show a plan of action in which the petitioner will engage to enhance his/her chances for satisfactorily completing the examination that was failed. The petition must be approved by the chairperson of the student's doctoral committee, the department head, the Dean of the College of Education and the Dean of the Graduate School.

A student who fails to pass the doctoral comprehensive examination or any part of it after the third attempt will be automatically discontinued as a student in the Doctor of Education degree program.

## DISSERTATION EXAMINATION

The Dissertation Committee will be appointed by the Dean of the Graduate School upon the recommendation of the department and will include an outside graduate representative. There will be at least three members on the Final Oral Examination Committee. Certification of successful completion of the final oral examination of the dissertation requires the signature of all members of the dissertation committee. The examination is conducted by the department and, if failed, the candidate must petition the Dean of the Graduate School, through his department, for permission to take the examination a second time. A second examination will not be permitted within a period of one semester after a failure is recorded on the first attempt. All changes in the dissertation suggested by the committee after the Oral Examination must be made before the dissertation can receive the final approval of the Graduate School. In addition to the dissertation, the student is required to condense the dissertation or a portion of it into a paper suitable for publication in a refereed journal. This paper must accompany the dissertation when it is presented to the members of the committee. In addition, an abstract, not exceeding 350 words must be prepared for submission to PROQUEST Information and Learning.

## TIME LIMIT FOR THE DOCTOR OF EDUCATION DEGREE

After being admitted to a program leading to the Doctor of Education degree, a student will be allowed seven calendar years in which to complete all of the requirements for the degree including transferred credit and prior credit at Texas Southern University.

Continuation in the doctoral degree program beyond the seven-year limit must be approved by the student's Doctoral Degree Advisory Committee and the Dean of the Graduate School. The maximum time allowed to complete the doctoral program, including an approved extension is eight calendar years. This time limit does not include work done as part of the requirements for a master's degree.

Credits earned more than seven years prior to the date of completion of doctoral degree requirements at Texas Southern University cannot be accepted toward the satisfaction of doctoral degree requirements.

## COURSE LOAD

The average number of hours that may be scheduled by a full-time doctoral student is twelve in a regular semester and six in a summer session. Those students who hold graduate assistantships, or those who are employed either full or part-time, or who have extended responsibilities in the home or community, will be restricted to a load not to exceed nine semester hours in a semester.

## TRANSFER OF CREDIT

The following regulation governs acceptance of transfer credits:

To transfer doctoral credits from another university to Texas Southern University, a statement must be submitted to the Texas Southern University Graduate School Office by the Graduate Dean, Registrar or Department Head at the institution from which the credits are being transferred, indicating that the credits were earned in a doctoral program of study at that institution. Not more than 15 semester hours of "B" (3.0) grade or better may be transferred.

# DEGREE REQUIREMENTS <br> Doctor of Philosophy Degree <br> in Environmental Toxicology 

## DOCTOR OF PHILOSOPHY DEGREE

The overall requirements for the Doctor of Philosophy Degree in Environmental toxicology are summarized as follows:

1. Satisfactory performance on qualifying examinations.
2. Completion of a total of 75 semester credit hours above the master's degree. A minimum of nine ( 9 ) credit hours must be taken in core courses and a minimum of twenty-four (24) credit hours must be taken in specialization area courses. Six (6) credit hours are required for internship and thirty six (36) credit hours are required for research and dissertation.
3. Of the total 75 credit hours, not more than nine (9) (not including the dissertation) can be transferred into the program from another University. Such transferred credits must have been earned in a doctoral program and must be of grade $B(3.00)$ or better.
4. Satisfactory performance on the Comprehensive Examination.
5. Completion of residency requirement.
6. Completion of a satisfactory internship.
7. Completion of the research and submission of an-acceptable dissertation.
8. Satisfactory performance on an oral examination on the dissertation.

## QUALIFYING EXAMINATION

After the student has completed the basic core courses and if necessary, other background courses in biology, chemistry, and mathematics, he/she must pass the qualifying examinations. These examinations will consist of test items from the core and related subject matter areas. A student will be allowed two attempts to pass the qualifying examinations and may petition to take them a third time.

## COMPREHENSIVE EXAMINATION

A comprehensive examination is required of all doctoral students and can be taken after the qualifying examinations have been passed and all course work in the degree plan has been satisfied. The comprehensive examination will be composed of test items from the student's specialization area and questions from the basic core and related courses in environmental toxicology. The student will be allowed two attempts to pass the comprehensive examination and may petition to take it a third time.

## INTERNSHIP

Upon the approval of the student's advisory committee, the doctoral student will be required to participate in an internship program. The internship will require full-time participation of a semester or two summer terms depending on the laboratory and the nature of the research project. The internship will carry six semester hours.

## DOCTORAL CANDIDACY

The residency requirement may be met by one of the following:
a. Option 1: A minimum full-time course load taken in a regular semester immediately preceding or following full-time enrollment in each of the summer terms.
b. Option 2: Enrollment in a minimum full-time course load in two consecutive semesters. Master's students will achieve residency after completing course requirements.


#### Abstract

ADMISSION TO CANDIDACY As a condition for admission to doctoral candidacy, the student must complete all course work, except for the dissertation, satisfy residency and the internship requirement, and pass the qualifying and the comprehensive examinations. Master's degree students will achieve candidacy after passing the qualifying examination, and the English Proficiency, and course work requirements.


## CHOICE OF MAJOR ADVISOR

At the time of admission each student will be assigned to a graduate student adviser. The graduate student adviser will advise the student until he/she chooses an area of special interest. Then, each student will interview at least three faculty members concerning their research interests and involvement. After these interviews, the student will select a professor who agrees to serve as his/her major adviser and chair of the thesis or dissertation committee. The committee will be composed of at least three persons from the environmental toxicology faculty. The Graduate School dean will assign a graduate representative from outside the environmental toxicology faculty to join the committee when it is formed.

## DISSERTATION

The Ph.D. is primarily a research degree and the student is expected to demonstrate the ability to design a research project, to implement it, contribute new knowledge to the field of study and write an acceptable dissertation. The dissertation topic and the nature and extent of the research will be recommended by the student and his/her adviser for approval by the dissertation committee. The format of the dissertation, described in a booklet from the Graduate Office, must be followed. The dissertation must be defended before the committee in an oral examination. Certification of successful completion of the Oral Examination requires the signature of all members of the dissertation committee. A student who fails the final oral examination on the dissertation may petition the Dean of the Graduate School through the department for a second attempt to pass the examination. The second attempt cannot be made until at least one semester has passed since the first attempt. All changes in the dissertation suggested by the committee after the Oral Examination must be made before the dissertation can receive the final approval of the Graduate School. In addition to the dissertation, the student is required to condense the dissertation or a portion of it into a paper suitable for publication in a refereed journal. This paper must accompany the dissertation when it is presented to the members of the committee. In addition, an abstract, not exceeding 350 words must be prepared for submission to PROQUEST Information and Learning.

## CURRICULUM

The objective of the environmental toxicology program of study is to provide training which will enable students to apply the principles and methods of the physical and biological sciences to the study of toxicants as a basis for solving problems occasioned by the presence of toxicants in the environment. While the emphasis in the master's program will be on course work, the Ph.D. degree curriculum is designed to produce graduates who are highly skilled in designing and implementing research studies, analyzing data and applying results that may be used in the formulation of policies and plans for a more healthy environment. Students may take electives drawn from existing courses in environmental law, health sciences, technology and management.

Students in both the MS and Ph.D. degree programs will study the properties, fate, biological effects, detection and regulation of natural and man-made toxicants present in the environment. Toxicants may include air, water and soil pollutants such as pesticides, industrial chemicals, and poisons produced by microbes, plants, and animals. The program for Ph.D. degree students will have a strong emphasis on research.

Students working toward the Master's program must complete 30 semester credit hours (SCH) of courses and 6 SCH of research. Students working toward the Ph.D. degree must complete a residency as shown in a degree plan that includes courses that support the specialization that the student seeks to achieve. The residency must show a minimum full-time course load taken in two consecutive semesters or one semester of full-time study preceded or followed by two summer terms of full-time course work. Students holding only a Bachelor's degree who are admitted to the Ph.D. degree program must complete all of the courses required in the Master's program in environmental toxicology. Likewise, Master's degree holders admitted to the $\mathrm{Ph} . \mathrm{D}$. degree program must also show that they have satisfied the course requirements or equivalents in the Master's degree program in environmental toxicology. In addition, all doctoral students must complete the Ph.D. program requirements.

## RESEARCH TOPICS

Students may pursue research problems in the following areas: Air, Water, Soil pollution; Genetic Toxicology; Chemistry and Fate of Pesticides; Pathogenesis of Toxicants; Natural Toxicants.

## TIME LIMIT FOR THE DOCTOR OF PHILOSOPHY DEGREE

After being admitted to a program leading to the Doctor of Philosophy degree, a student will be allowed seven calendar years in which to complete all of the requirements for the degree including transferred credit and prior credit at Texas Southern University.

Continuation in the doctoral degree program beyond the seven-year limit must be approved by the student's Doctoral Degree Advisory Committee and the Dean of the Graduate School. The maximum time allowed to complete the doctoral program, including an approved extension is nine calendar years. This time limit does not include work done as part of the requirements for a master's degree.

## ACADEMIC STANDARDS FOR ALL GRADUATE STUDENTS

## SCHOLASTIC DISHONESTY

Honesty being the foundation of all citizenship, the student should maintain a high standard of honor in scholastic work. The student should avoid all forms of scholastic dishonesty including:

1. Plagiarism. The appropriation of passages, either word for word or in substance, from the writings of another and the incorporation of these as one's own written work offered for credit. It is always assumed that the written work offered for credit is the student's own unless proper credit is given the original author by the use of quotation marks and footnotes or other explanatory inserts.
2. Collusion. Working with another person in the preparation of notes, themes, reports, or other written work offered for credit unless such collaboration is specifically approved in advance by the instructor.
3. Cheating on an examination or quiz. Giving or receiving, offering or soliciting information, or using prepared material in an examination or a quiz. On examinations and quizzes students are expected: (1) to remain in the examination room until the examination is finished; (2) to refrain from talking; (3) to refrain from bringing notes and books into the examination room.

Cases of alleged scholastic dishonesty will be referred to the Graduate Council's committee on student affairs. The committee will recommend to the Dean of the Graduate School the action to be taken in cases of scholastic dishonesty. Appropriate actions may include indefinite suspension for a specific period, disallowance of credit for certain courses or other actions appropriate to the situation.

## STANDARD OF WORK

Not more than six semester hours of "C" work will be accepted towards the completion of the minimum semester hours of required courses in the master's or doctoral curriculum in which a student's program of study has been approved. A grade of "D" or "F" is not acceptable towards the fulfillment of degree requirements in the Graduate School.

Regardless of his/her admission status, each student in the Graduate School is expected to maintain at least a 3.00 (B) grade point average in all graduate work taken. If at the end of any semester or summer session, the student's cumulative grade point average for all graduate work taken in residence, with the exception of grades earned in the thesis/dissertation writing course, is less than 3.00 (B), he/she shall be placed on probation.

The student on probation who achieves an overall cumulative grade point average of 3.0 or better during his/her next semester or summer session of enrollment but who fails to achieve an overall grade point average of 3.00 (B) shall remain on probation.

If a student on probation fails to raise his/her overall grade point average to 3.00 (B) or better, exclusive of incomplete grades for three consecutive semesters or summer session of enrollment in courses other than a thesis/dissertation writing course, he/she is automatically discontinued as a degree seeking student and may be dropped from the Graduate School.

Subsequent to dismissal from the Graduate School, the student may be readmitted for further graduate study in either the same or a different department as a special student if his or her petition is approved by the department in which the student proposes to undertake further study and by the Dean of the Graduate School. A student who has been discontinued because of unsatisfactory scholarship may not be readmitted for further graduate study in the academic period (semester or summer session) which directly follows his or her discontinuance as a degree seeking student.

## COURSE NUMBERS

Courses numbered 500 and above are graduate courses and, with rare exceptions, restricted to graduate students. Undergraduate courses marked at the right of the course number by an asterisk may be taken for graduate credit. At least $75 \%$ of
the work for the degree must be 500 level or above. No credit below the 500 level is acceptable for the Doctor of Education degree.

In order to receive graduate credit for courses open to both undergraduate and graduate students, the graduate student must perform work of graduate quality and may be required to perform work in addition to that required for the undergraduate student.

The semester-hour requirement for specific degrees and for the professional certificate, where offered, are given in the departmental section of this bulletin.

## GRADING

Beginning the Fall of 1991, the following grades and quality points apply:

| Grade | Meaning | Grade Points Per Credit Hour |
| :--- | :--- | :---: |
| A | Excellent | 4.00 |
| A- | Intermediate Grade | 3.67 |
| B+ | Intermediate Grade | 3.33 |
| B | Good | 3.00 |
| B- | Intermediate Grade | 2.67 |
| C+ | Intermediate Grade | 2.33 |
| C | Satisfactory | 2.00 |
| C- | Intermediate Grade | 1.67 |
| D+ | Intermediate Grade | 1.33 |
| D | Marginal | 1.00 |
| D- | Intermediate Grade | 0.67 |
| F | Failure | 0 |
| I | Incomplete | 0 |
| P | Passing | 0 |
| R | In Progress | 0 |
| S | Satisfactory | 0 |
| U | Unsatisfactory | 0 |
| W | Withdrawal | 0 |

The grade "R", meaning "In Progress", is given only when the work in a course extends beyond the semester of term. It implies satisfactory performance. The grade " $R$ " will not alter the quality point average of the student since hours attempted, hours earned, and quality points earned will not be entered in cumulative totals.

The grade " $W$ " is given for a course officially dropped by the student after the twelfth class day of a regular semester or the fourth day of a summer term and before mid-semester or mid-term.

## GRADE NOTIFICATION

1. Final grades are mailed to students at their addresses of record for receiving correspondence from the University.
2. Grades are mailed four (4) times yearly at the end of each enrollment period.
3. Grades are mailed no later than four ( 14 ) days after all final examinations have been completed.

## INCOMPLETES

The symbol "I" is used to indicate that the student has failed to meet some specific requirement of the course. The student may remove the " I " in or out of residence by complying with the specific requirement within the next semester or term in which he or she is enrolled, if within one year. If the "I" is not removed in one calendar year, the "I" will remain on the record.

## STUDENT LOAD

To be considered full-time, a student must register for at least nine (9) semester hours of graduate work per semester; the maximum load is fifteen (15) semester hours of graduate credit and the average is twelve (12). Any deviation from this
regulation requires the approval of the Dean of the Graduate School. The maximum student load during a six-week summer term is six semester hours.

## REPEATED COURSES

When a course is repeated, the semester hours attempted and the grade and quality points earned in the course when last taken shall be counted toward satisfying graduation and/ or certification requirements. When a course is repeated, the semester hours attempted and the grade and quality points earned in the course when it was taken prior to the last time shall be disregarded for graduation or certification requirements.

## MAJOR, MINOR, AND COGNATE COURSES

The following statements regarding major, minor, and cognate courses apply to non-professional degrees. Detailed descriptions of degree programs for teachers are found in departmental sections of the catalog.
Each graduate student will select a field of specialization which shall be known as his or her "major." This field of specialization may consist of work in a single department or it may consist of work in two or more closely related departments. The first case is called a "departmental major," the second, a "composite major."

## DEPARTMENTAL MAJOR

A student who is working towards a degree must select a department or specialization which shall be known as his/her "major." At least one half of the total hours required for the departmental major shall be taken in the major department.

## DEPARTMENTAL MINOR

A student who chooses a program calling for a major and a minor must complete 9 to 12 semester hours of work in the minor area acceptable for graduate credit. The remainder of the hours required for the degree in the respective fields shall be taken in the major field or in a cognate area suggested by the major advisor.

## COMPOSITE MAJOR

A student who wishes to become an applicant for the master's degree with a composite major must select a department of specialization which will be known as his/her "department of concentration." He/she will take not less than the minimum number of hours required to obtain a major in the department of concentration, exclusive of research courses. He/she will also take at least six semester hours in each of two or more departments to be named by his or her department of concentration.

## COGNATE COURSES

A cognate course is one which supplements the work of the major or minor. Cognate courses to the extent of nine semester hours outside the student's major or minor departments may be elected when, in the opinion of the advisor, it seems desirable.

## CHANGES IN PROGRAM

Changes from one program to another (including changes from one degree to another, from one major to another, etc.) shall be requested by the student through the head of the department and Dean of the Graduate School. However, a student may not change his/her program during the semester or summer term when he or she is to graduate.

## SUBSTITUTION OF COURSES

Reasonable and logical substitutions (within a department and within an area) may be made when authorized by the advisor and the head of the major department and approved by the Dean of the Graduate School. The Dean shall transmit approved substitutions to the Registrar. All petitions for substitutions must be submitted through appropriate officials not later than two weeks before the candidate's date of intended graduation.

## WAIVING OF COURSES

No graduate course requirements will be waived.

## APPLICATION FOR GRADUATION

Each candidate for graduation must file in the Graduate Office an "Application for Graduation" by the date specified in the Academic Calendar. Any student who fails to graduate after applying for graduation must file a new application to graduate at a subsequent time.

## GRADUATION UNDER A SPECIFIC BULLETIN

The student may elect to graduate under the bulletin in force at the time of his or her initial matriculation in the Graduate School, provided that the bulletin was not issued more than six years (seven years for doctoral programs) prior to the date of the student's graduation. The student is_required to indicate in his/her application for graduation the bulletin under which the student proposes to graduate and meet the requirements in that bulletin.

## COMMENCEMENT CONVOCATION

All graduating students shall participate in the commencement exercises. Only students who have completed all requirements for the degree can participate in the commencement exercises.

## CONTINUOUS ENROLLMENT

All graduate students engaged in independent study or in research related to the preparation of a thesis or dissertation must be enrolled at Texas Southern University for a minimum of three semester hours during each semester or summer session in which the study or research occurs.

Except for students who must remove incomplete grades, all graduate students must be enrolled at Texas Southern University during the semester in which degree program requirements are expected to be completed. The requirements include but are not limited to the English Proficiency Examination, the Comprehensive Examination in the major and/or minor areas, Foreign Language Examination, Thesis or Dissertation Examination, and Final Doctoral Examination.

## SUMMER SESSION

The University holds a summer session of two six-week terms. It is possible to fulfill all of the requirements for the master's degree by attendance at summer sessions.

Graduate courses offered in the summer are taught by members of the regular faculty, supplemented by a number of visiting professors.

NOTE: Not all of the courses shown in this bulletin are offered every year. The class schedule, published just before the opening of each semester or term, carries the particular courses to be offered and the hours at which they are to meet.



## COLLEGE OF SCIENCE \& TECHNOLOGY



## College of Science \& Technology

The mission of the College of Science and Technology is to prepare competent professionals and leaders capable of providing effective service in bringing about solutions to the problems of the nation and the world, especially in urban environs. In pursuing its mission, the College of Science and Technology encourages research and scholarly endeavors.

Applicants wishing to enroll in one of the programs of study leading to graduate degrees offered through the College of Science and Technology must gain admission to Texas Southern University through adherence to the policies and procedures established by the Graduate School.

## Biology

The Department of Biology offers one graduate degree, the Master of Science (M.S.) in Biology. The graduate degree is primarily intended to prepare students who will seek further advanced [e.g., Doctor of Philosophy (Ph.D.)] degrees in specific areas of research specialization in the Biological Sciences.

The graduate (M.S.) degree program in the Department is also designed for those who wish to teach Biology in public and private schools, two and four-year colleges, and also for those who wish to seek employment in government and industry and related areas.


#### Abstract

ADMISSION CRITERIA In addition to meeting the general requirements for admission to the Graduate School, applicants for unconditional admission must have a Bachelor's degree in Biology, preferably with an undergraduate grade point average (GPA) of 3.0 on a 4 -point system, and expected to present evidence of having completed minimally the following courses and/or credit hours:


Biology ....................... 31 (minimum)
Chemistry..................... 16
Mathematics................ 10
Physics........................... 8

Those applicants who fail to satisfy the course requirements for admission may register, upon the permission of the Chairperson of the Department, as graduate students and take a combined program of undergraduate and graduate courses until the above-noted requirements are met.

## DEGREE REQUIREMENTS

 Master of Science in Biology1. An examination on the fundamentals of biology before admission to candidacy.
2. Demonstration of proficiency in English, prior to admission to candidacy either by passing an examination in English or by satisfactory performance in English 501.
3. Demonstration by examination, of a reading proficiency in a foreign language (French, Spanish or German) prior to admission to candidacy or by passing Computer Science (CS 117).
4. A minimum of 30 semester credit hours, six of which might be earned in research.
5. An acceptable thesis resulting from experimental research. The thesis research may not be initiated prior to admission to candidacy.
6. An oral or written comprehensive examination on principles and concepts in biology, and a defense of the thesis, all of which are given after the thesis has been accepted.

In addition to the program described above for the Master of Science degree, the Department of Biology, in cooperation with the Department of Curriculum and Instruction, participates in a program for teachers interested in the professional certificate.

## CURRICULUM SUMMARY

## Master of Science Degree in Biology

The Department of Biology offers the Master of Science degree, which requires a minimum of thirty (30) semester credit hours including an acceptable research project. No more than six semester credit hours are allowed from the specified 400 -level courses listed as advanced undergraduate-graduate courses.

Students must meet the general requirements for all graduate students as prescribed in this Bulletin. Degree plans must be approved by the graduate program advisor prior to submission to the Graduate School.

This program is designed to provide instructional enhancement to meet the needs of teachers, practitioners and others who wish to supplement their undergraduate education and expand their research capabilities in Biology through study beyond the master's degree.

## Allocation of Thirty Semester Credit Hour Course Requirements

General Requirements: Minimum thirty (30) semester credit hours - of which 6 hours of thesis research credit should be satisfied by taking Biology 861-twice.

Twenty-four (24) hours of graduate credits* are to be met by selecting from the following courses:

| Biol. 623 (3)** | Biol. 631 (3) | Biol. 636 (3) |
| :--- | :--- | :--- |
| Biol. 642 (4) | Biol. 647 (4) | Biol. 648 (4) |
| Biol. 650 (3) | Biol. $712(3)$ | Biol. 715 (3) |
| Biol. 725 (3) | Biol. 775 (3) | Biol. 777 (3) |
| Biol. 785 (3) | Biol. 795 (3) |  |

*Not more than six semester credit hours may be taken from 400 level courses designated as advanced undergraduate/graduate courses.
** $(\mathrm{N})=$ Number of semester credit hours.

## COURSE DESCRIPTIONS

Advanced Undergraduate-Graduate
Biology 433 Genetics (3) In-depth discussion of the basic concepts of Mendelian, molecular, and population genetics. Three hours of lecture per week. (Prerequisite/Two years of college level biology and two years of college level chemistry)

Biology 438 Plant Biology (3) Plant structure and physiology; plant biotechnology; medicinal plants; and interactions between plants and their environment. Two hours of lecture and three laboratory hours a week. (Prerequisite/Senior standing in Biology)

Biology 439 Principles of Biology (3) Comprehensive review of basic biological principles operating at various levels of organization in living systems. Two hours of lecture and two hours of laboratory a week. (Prerequisite/Consent of the instructor)

Biology 441 Histology (4) Microscopic study of the anatomy and relevant functions of vertebrate tissues and organs using light microscopy and selected electron micrographs. Three hours of lecture and three lab hours a week. (Prerequisites/Biol. 241 or Biol. 243 or Biol. 341)

Biology 442 Laboratory Methods in the Biological Sciences (4) The course is designed to acquaint students with techniques, methods, and instrumentation used in the studies of several sub-disciplines of biological sciences. Three lecture and three lab hours a week. (Prerequisites/Biol. 122 and Biol. 132)

Biology 446 Human Physiology Laboratory (1) Laboratory experiments and exercises to complement the lectures in human physiology (Biol. 447). Three hours of laboratory a week. (Prerequisites/Biol. 122 and Biol. 132)

Biology 447 Human Physiology (3) Comprehensive treatment of the physiological and biochemical aspects of organ systems in humans. Three hours of lecture a week. (Prerequisites/Biol. 122 and Biol. 132)

Biology 448 Cellular Physiology (3) Physiological and biochemical consideration of various cellular processes such as photosynthesis and respiration. Three hours of lecture per week. (Prerequisite/Senior standing in Biology)

Biology 449 General Physiology (3) Comprehensive treatment of the functioning of the digestive, circulatory, neuromuscular, endocrine, and renal systems. Three hours of lecture per week. (Prerequisite/Senior standing in Biology)

Biology 450 Molecular Genetics (3) In-depth study of the biochemistry and chemistry of genes including aspects of gene expression and that of biotechnology. Three hours of lecture per week. (Prerequisite/Senior standing in Biology)

Biology 452 Intermediary and Cellular Metabolism (3) Quantitative bioenergetics; patterns of breakdown and synthesis of cellular metabolites; metabolic and hormonal regulations; integration and pathological disorders; and relevance of metabolism to medicine. Three hours of lecture per week. (Prerequisite/Biology 340)

Biology 454 Immunology (3) Comprehensive treatment of the immune system and immunological mechanisms. Two hours of lecture and three lab hours a week. (Prerequisite/Senior standing in Biology)

Biology 460 Biostatistics (3) Evaluation of the significance of the results of biological experiments, observations and clinical trails through statistical analysis. Three hours of lecture per week. (Prerequisites/Senior standing in Biology and one year of college level Mathematics)

Biology 499 Seminar (1) Presentation and analysis of various biological problems and recent research. Required of graduating seniors in biology. One hour of lecture per week. (Prerequisite/Senior standing in Biology; students may enroll for a maximum of two semesters)

## Graduate

Biology 623 Neurobiology (3) Structure and function of the brain and of the nervous system as a whole with emphasis on cellular and molecular mechanisms. Lectures, discussion, student reports. Three hours of lecture per week. (Prerequisite/ Graduate standing in Biology)

Biology 631 Diagnostic Bacteriology (3) Fundamental training in isolation and identification of microorganisms obtained from a clinical laboratory specimen. One hour of lecture per week and two three-hour laboratory classes. (Prerequisite/Biol. 347)

Biology 636 Endocrinology (3) An examination through lectures and discussions of the glands of internal secretion with special reference to the humans. Three hours of lecture per week. (Prerequisite/Graduate standing in Biology)

Biology 642 Techniques in Electron Microscopy (4) There are three aspects: (1) specimen preparation, (2) acquisition of skill in microscope operation, and (3) preparation and submission of electron micrographs. Three hours lecture and three hours laboratory per week. (Prerequisite/Permission of the instructor)

Biology 647 Experimental Biology I (4) Current topics in biological research utilizing published literature as lecture material and as the basis for student presentations and experimentation. One hour of lecture and four hours of laboratory a week. (Prerequisite/Graduate standing in Biology)

Biology 648 Experimental Biology II (4) A continuation of Biology 647, emphasizing the application of modern biological , chemical and physical methods to the study of the biological sciences. One hour of lecture and four hours of laboratory a week. (Prerequisite/Graduate standing in Biology)

Biology 650 Enzymology (3) A study of enzyme classification, structure, kinetic models, rapid and relaxation kinetics for complex enzyme mechanisms. Three hours of lecture. (Prerequisite/Graduate standing in Biology)

Biology 712 Biosynthetic Mechanisms (3) Molecular processes involved in the DNA function, biosynthesis replication, translation, transcription; biochemical mechanisms in RNA synthesis and protein biosynthesis. Molecular aspects of evolution and carcinogenesis. Three hours of lecture a week. (Prerequisite/Graduate standing in Biology)

Biology 715 Advanced Human Genetics (3) Comprehensive treatment of various aspects of human heredity-normal as well as those due to abnormal inheritance causing malfunctioning in metabolism. Three hours of lecture a week. Prerequisite/Graduate standing in Biology)

Biology 725 Biochemical Ecology (3) An advanced in-depth biochemical study of structure and function of ecosystems and of their changes due to natural and anthropogenic causes. Three hours of lecture a week. (Prerequisite: Graduate standing in Biology, Chemistry, or Toxicology)

Biology 775 Bio-Organic Chemistry (3) A comprehensive treatment of the structure and function of various organic compounds occurring in living organisms. Three hours of lecture a week. (Prerequisite/Graduate standing in biology, chemistry, or toxicology)

Biology 777 Biophysics (3) A comprehensive treatment of the concepts in physics and physical chemistry as applicable to biological systems. Three hours of lecture a week. (Prerequisite/Graduate standing in Biology or Chemistry)

Biology 785 Advanced Plant Physiology and Plant Biochemistry (3) An in-depth treatment of photosynthesis, photoperiodism, nitrogen-fixation and of plant molecular biology. Three hours of lecture a week. (Prerequisite/Graduate standing in biology)

Biology 795 Graduate Biology Seminar (3) Review and in-depth critical discussion of current published papers in selected areas of biological and biochemical sciences. Three hours of presentation a week. (Prerequisite/Graduate standing in biology, chemistry, or toxicology)

Biology 861 Research Problems (3) An individual investigation of a specific research problem in biological sciences through literature search and laboratory experimentation. Supervised by members of the Graduate Faculty.

## Chemistry

The Department of Chemistry offers the Master of Science in Chemistry. It is designed to:

1. Prepare students for additional study toward the Ph.D. degree.
2. Prepare well-trained chemists for positions in industry and governmental agencies.
3. Provide continuing education for working chemists.
4. Provide upper-level service courses to public school and junior college teachers seeking either a professional certificate or the M.Ed. degree for teachers of chemistry offered through the College of Education.

ADMISSION CRITERIA
In addition to the general requirements for admission to the Graduate School (see the General Information Section of this bulletin), applicants for admission to graduate standing in Chemistry are expected to present evidence of having completed the following courses with the indicated semester credit hours:

- General inorganic chemistry with laboratory (8)
- General organic chemistry with laboratory (8)
- Quantitative analysis with laboratory (4)
- Elementary physical chemistry with laboratory (8)
- Instrumental methods of analysis (3)
- College physics (6)
- Differential and integral calculus (6)

A diagnostic examination or Qualifying Examination covering the fundamentals of chemistry is required of all applicants prior to official admission to candidacy for the Master of Science in Chemistry degree. Only two attempts to pass this examination are permitted.

## DEGREE REQUIREMENTS

Master of Science in Chemistry
The requirements for the Master of Science in Chemistry are summarized below:

1. Satisfactory performance on the qualifying examination.
2. Completion of a total of thirty (30) semester credit hours of graduate level courses (usually 500 level or above). A minimum of twenty-four (24) of these credit hours must be in Chemistry, including six (6) hours of research (CHEM 861 taken twice). The remaining six (6) hours may be taken in related disciplines such as Biology and/or Mathematics.
3. Completion and presentation (through an oral defense) of a thesis to a committee composed of members of the Department of Chemistry and representatives of the Graduate School.
4. Fulfillment of general requirements for graduation as outlined by the Graduate School (see the General Information Section of this bulletin).

Persons wishing to acquire the Professional Certificate for Teachers of Chemistry or wishing to earn the M.Ed. for Teachers of Chemistry should contact an advisor in the College of Education.

## CURRICULUM SUMMARY

 Master of Science in Chemistry
## DEGREE PLAN

Students must meet the general requirements for all graduate students as prescribed in this bulletin. Degree Plans must be approved by the graduate program advisor prior to submission to the Graduate School.

## MASTER OF SCIENCE (THESIS)

This plan is designed to provide instructional enhancement to meet the needs of teachers, practitioners and others who wish to supplement their undergraduate education and expand their research capabilities in Chemistry through study beyond the master's degree.

## ALLOCATION OF THIRTY SEMESTER HOUR COURSE REQUIREMENTS

General Requirements: Minimum thirty (30) semester credit hours and either a professional paper or research project (thesis).

1. Core Courses (Required) $\qquad$ 18 SCH
CHEM 531 (3)
CHEM 543 (3)
CHEM 633 (3)
CHEM 635 (3)
CHEM 861 (3)**
2. Elective Courses 12 SCH
CHEM 445 (4
CHEM 533 (1)
CHEM 623 (3)
CHEM 624 (3)
CHEM 625 (3)
CHEM 634 (3)
CHEM 636 (3) B1OL 650 (4) MATH 439 (1)
MATH 577 (3) MATH 578 (3)
TOTAL
30SCH
Approved selected ES (Environmental Toxicology) courses.
**Enroll twice

## COURSE DESCRIPTIONS Advanced Undergraduate-Graduate

CHEM 445 B1OCHEMISTRY (4) A study of the structure, physical properties, and chemical reactions of lipids, proteins, enzymes, and vitamins. An in-depth study of the processes of digestion and metabolism. Two lecture hours and four laboratory hours per week. (Prerequisite: CHEM 232)

CHEM 499 SEMINAR (1) Attendance and participation in weekly seminars are required. Recent research developments in a variety of fields discussed. Students must give at least one seminar during the semester(s) in which they are enrolled. The course may be repeated for a maximum of four (4) semester credit hours.

## Graduate

CHEM 531 ADVANCED INORGANIC CHEMISTRY (3) A study of atomic structure; chemical bonding, including valence-bond, molecular orbital, crystal-field, and ligand-field theories; stereochemistry and the chemistry of coordination compounds. Three lecture hours per week. (Prerequisite: Approval of the graduate advisor)

CHEM 533 ORGANIC REACTIONS (3) A detailed study of the mechanisms associated with the important substitution, elimination, and addition reactions of aliphatic and aromatic molecules. Three lecture hours per week. (Prerequisite: CHEM 232)

CHEM 543 ADVANCED ANALYTICAL CHEMISTRY (3) An in-depth study of the principles of ionic equilibria, acid-base chemistry, oxidation-reduction, and precipitation as they apply to processes occurring in both aqueous and nonaqueous media. Three lecture hours per week. (Prerequisite: Approval of the graduate advisor or the Department Chair)
CHEM 572 INORGANIC CHEMISTRY FOR TEACHERS I (3) A discussion of newer concepts of the oxidation states of the elements, modern theories on acidity, new methods of synthesis of inorganic com- pounds, and recent advances in fundamental inorganic chemistry. (Prerequisite: Approval of the Department Chair)

CHEM 573 INORGANIC CHEMISTRY FOR TEACHERS (3) A continuation of CHEM 572. Three lecture hours per week. (Prerequisite: Approval of the Department Chair)

CHEM 623 SPECIAL TOPICS (3) Consideration of special topics in chemistry. Three lecture hours per week. (Prerequisite: Approval of the graduate advisor or the Department Chair)

CHEM 624 SPECIAL TOPICS (3) Consideration of special topics in chemistry. Three lecture hours per week. (Prerequisite. Approval of the graduate advisor or the Department Chair)

CHEM 625 SPECIAL TOPICS (3) Consideration of special topics in chemistry. Three lecture hours per week. (Prerequisite: Approval of the graduate advisor or the Department Chair)

CHEM 633 ADVANCED ORGANIC CHEMISTRY (3) A study of the mechanisms of reactions of aliphatic and aromatic molecules; both carbocyclic and heterocyclic systems are considered. The effects of changes in structure and stereochemistry on the rate of reaction are also discussed. Three lecture hours per week. (Prerequisite: Approval of the graduate advisor or the Department Chair)

CHEM 634 ADVANCED ORGANIC CHEMISTRY (3) A continuation of CHEM 633. Three lecture hours per week. (Prerequisite: CHEM 633)

CHEM 635 ADVANCED PHYSICAL CHEMISTRY (3) A discussion of important concepts in thermodynamics. Three lecture hours per week. (Prerequisite Approval of the graduate advisor or the Department Chair)

CHEM 636 ADVANCED PHYSICAL CHEMISTRY (3) The second semester is a discussion of fundamental quantum chemistry and other advanced topics in physical chemistry. (Prerequisite: Approval of the graduate advisor or the Department Chair)

CHEM 861 RESEARCH PROBLEMS (3) An individual investigation of a specific problem in chemistry) by laboratory experiments or by an exhaustive study\} of the literature. The results of this work will constitute the student's thesis for the M.S. degree. (Prerequisite: Approval of the graduate advisor or the Department Chair)

## Environmental Toxicology

The Environmental Toxicology degree program is offered through the Graduate School and housed in the Department of Chemistry. The program is interdisciplinary with support provided by the Departments of Biology and Chemistry and the College of Pharmacy and Health Sciences.

The environmental toxicology programs consist of a Master of Science degree program and a Doctor of Philosophy degree program. In offering these degrees, the programs are designed to:

1. Prepare students for professional careers in industry, government and higher education.
2. Prepare scientists who have a knowledge of the basic mechanisms by which pollutants act in the abiotic and living environments.
3. Prepare professionals who are qualified to pursue research on environmental problems created by industrial pollution and by other human activities that change the natural environment.
4. Prepare professionals who are capable of making environmental impact and risk assessments and can develop appropriate environmental planning and management models that will be used in formulating environmental policy.
5. Train environmental toxicologists who are prepared by training and experience to anticipate, assess and recommend action on a wide spectrum of environmental problems.
6. Increase the number of minority researchers in the field of environmental toxicology.

## ADMISSION CRITERIA <br> Doctor of Philosophy Degree Environmental Toxicology

The admission criteria for applicants to the Doctor of Philosophy Degree Program in Environmental Toxicology are summarized below:

1. Applicants for admission to the Ph.D. degree program in environmental toxicology must meet the requirements for admission to the Graduate School. To be considered, the applicant must have earned the Bachelor's degree in an appropriate field of the natural sciences or in an equivalent discipline acceptable to the admissions committee.
2. Applicants who have earned the Master's degree must have a cumulative 3.3 grade point average in graduate work.
3. Applicants must present a Graduate Record Examination (GRE) scores (combined verbal and quantitative) which are considered along with the applicant's undergraduate grade point average that must be at least 2.75 overall or 3.0 in the last sixty hours. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
4. The applicant's performance during a personal interview.
5. Demonstrate acceptable proficiency in the use of the English language based upon performance on a standardized English Proficiency Test. (Performance on the verbal portion of the GRE may be considered as adequate by the Admissions Committee.)
6. Have a personal interview with the Department Chair and faculty members in the area of the planned academic concentration.
7. International applicants, in addition to the above requirements, must present a TOEFL score of at least 550 or appropriate evidence of proficiency in the English language.
8. The formal application must include the following:
a. A completed application form and a non-refundable application fee.
b. At least three recommendations from persons qualified to give an evaluation of the applicant's past scholastic performance, research and scientific abilities and personal motivation.
c. An official transcript of credits earned at all colleges and/or universities attended by the applicant.
d. Scores from the Graduate Record Examination (General Test and one Advanced Test, in either Biology or Chemistry). In addition, inter- national applicants must provide TOEFL scores.

## DEGREE REQUIREMENTS

Doctor of Philosophy Degree<br>in Environmental Toxicology

The overall requirements for the Doctor of Philosophy Degree in Environmental toxicology are summarized as follows:

1. Satisfactory performance on qualifying examinations.
2. Completion of the equivalent of master's degree credits plus a minimum of nine (9) credit hours must be taken in core courses and a minimum of twenty-four (24) credit hours must be taken in specialization area courses. Six (6) credit hours are required for internship and thirty six (36) credit hours are required for research and dissertation.
3. Of the total 75 credit hours, not more than nine (9) (not including the dissertation) can be transferred into the program from another University. Such transferred credits must have been earned in a doctoral program and must be of grade $B(3.00)$ or better.
4. Satisfactory performance on the Comprehensive Examination.
5. Completion of residency requirement.
6. Completion of a satisfactory internship.
7. Completion of the research for an acceptable dissertation.
8. Satisfactory performance on an oral examination about the dissertation.

## QUALIFYING EXAMINATION

After the student has completed the basic core courses and if necessary, other background courses in biology, chemistry, and mathematics, he/she must pass the qualifying examinations. These examinations will consist of test items from the core and related subject matter areas. A student will be allowed two attempts to pass the qualifying examinations and may petition to take them a third time.

## COMPREHENSIVE EXAMINATION

A comprehensive examination is required of all doctoral students and can be taken after the qualifying examinations have been passed and all course work in the degree plan has been satisfied. The comprehensive examination will be composed of test items from the student's specialization area and questions from the basic core and related courses in environmental toxicology. The student will be allowed two attempts to pass the comprehensive examination and may petition to take it a third time.

## INTERNSHIP

Upon the approval of the student's advisory committee, the doctoral student will be required to participate in an internship program. The internship will require full-time participation of a semester or two summer terms depending on the laboratory and the nature of the research project. The internship will carry six semester hours.

## DOCTORAL CANDIDACY

The residency requirement may be met by one of the following:
a. Option 1: A minimum full-time course load taken in a regular semester immediately preceding or following full-time enrollment in each of the summer terms.
b. Option 2: Enrollment in a minimum full-time course load in two consecutive semesters. Master's students will achieve residency after completing course requirements.

## ADMISSION TO CANDIDACY

As a condition for admission to doctoral candidacy, the student must complete all course work, except for the dissertation, satisfy residency and the internship requirement, and pass the qualifying and the comprehensive examinations. Master's degree students will achieve candidacy after passing the qualifying examination, and the English Proficiency, and course work requirements.

## CHOICE OF MAJOR ADVISER

At the time of admission each student will be assigned to a graduate student adviser. The graduate student adviser will advise the student until he/she chooses an area of special interest. Then, each student will interview at least three faculty members concerning their research interests and involvements. After these interviews, the student will select a professor who agrees to serve as his/her major adviser and chair of the thesis or dissertation committee. The committee will be composed of at least three persons from the environmental toxicology faculty. The Graduate School dean will assign a graduate representative from outside the environmental toxicology faculty to join the committee when it is formed.

## DISSERTATION

The Ph.D. is primarily a research degree and the student is expected to demonstrate the ability to design a research project, to implement it, contribute new knowledge to the field of study and write an acceptable dissertation. The dissertation topic and the nature and extent of the research will be recommended by the student and his/her adviser for approval by the dissertation committee. The format of the dissertation, described in a booklet from the Graduate Office, must be followed. The dissertation must be defended before the committee in an oral examination. Certification of successful completion of the Oral Examination requires the signature of all members of the dissertation committee. A student who fails the final oral examination on the dissertation may petition the Dean of the Graduate School through the department for a second attempt to pass the examination. The second attempt cannot be made until at least on semester has passed since the first attempt. All changes in the dissertation suggested by the committee after the Oral Examination must be made before the dissertation can receive the final approval of the Graduate School. In addition to the dissertation, the student is required to condense the dissertation or a portion of it into a paper suitable for publication in a refereed journal. This paper must accompany the dissertation when it is presented to the members of the committee. In addition, an abstract, not exceeding 350 words must be prepared for submission to University Microfilms Incorporated.

## CURRICULUM

The objective of the environmental toxicology program of study is to provide training which will enable students to apply the principles and methods of the physical and biological sciences to the study of toxicants as a basis for solving problems occasioned by the presence of toxicants in the environment. While the emphasis in the master's program will be on course work, the Ph.D. degree curriculum is designed to produce graduates who are highly skilled in designing and implementing research studies, analyzing data and applying results that may be used in the formulation of policies and plans for a more healthy environment. Students may take electives drawn from existing courses in environmental law, health sciences, technology and management.

Students in both the MS and Ph.D. degree programs will study the properties, fate, biological effects, detection and regulation of natural and man-made toxicants present in the environment. Toxicants may include air, water and soil pollutants such as pesticides, industrial chemicals, and poisons produced by microbes, plants, and animals. The program for Ph.D. degree students will have a strong emphasis on research.

Students working toward the Master's program must complete 30 semester credit hours (SCH) of courses and 6 SCH of research. Students working toward the Ph.D. degree must complete a residency as shown in a degree plan that includes courses that support the specialization that the student seeks to achieve. The residency must show a minimum full-time course load taken in two consecutive semesters or one semester of full-time study preceded or followed by two summer terms of full-time course work. Students holding only a Bachelor's degree who are admitted to the Ph.D. degree program must complete all of the courses required in the Master's program in environmental toxicology. Likewise, Master's degree holders admitted to the Ph.D. degree program must also show that they have satisfied the course requirements or equivalents in the Master's degree program in environmental toxicology. In addition, all doctoral students must complete the Ph.D. program requirements.

## RESEARCH TOPICS

Students may pursue research problems in the following areas: Air, Water, Soil pollution; Genetic Toxicology; Chemistry and Fate of Pesticides; Pathogenesis of Toxicants; Natural Toxicants.

## TIME LIMIT FOR THE DOCTOR OF PHILOSOPHY DEGREE

After being admitted to a program leading to the Doctor of Philosophy degree, a student will be allowed seven calendar years in which to complete all of the requirements for the degree including transferred credit and prior credit at Texas Southern University.

Continuation in the doctoral degree program beyond the seven-year limit must be approved by the student's Doctoral Degree Advisory Committee and the Dean of the Graduate School. The maximum time allowed to complete the doctoral program, including an approved extension is nine calendar years. This time limit does not include work done as part of the requirements for a master's degree.

ADMISSION CRITERIA
Master of Science Degree
Environmental Toxicology
Applicants must present a Graduate Record Examination (GRE) scores (combined verbal and quantitative) which are considered along with the applicant's undergraduate grade point average that must be at least 2.75 overall or 3.0 in the last sixty hours. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
a. Applicant was first generation to attend undergraduate school.
b. Applicant was first generation to attend graduate or professional school.
c. Applicant is multi-lingual.
d. Applicant was employed while attending undergraduate school.
e. Applicant helped to raise other children in family.
f. Geographic residence in Texas of applicant at time of application.
g. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.

1. The applicant's performance during a personal interview.

The applicants are expected to present evidence of having completed the following courses with the indicated, associated semester credit hours (in parentheses):

- General Chemistry w/laboratory
- General Organic Chemistry w/laboratory
- Biology w/laboratory
- Physics
- Calculus


## DEGREE REQUIREMENTS <br> Master of Science Degree <br> Environmental Toxicology

The requirements for the Master of Science Degree in Environmental Toxicology are summarized below:

1. Satisfactory performance on the Qualifying Examination.
m. Completion of a total of ( 36 ) semester credit hours of graduate level courses (usually 500 level or above). A minimum of twelve (12) of these credit hours must be in core courses. A total of eighteen (18) credit hours must be taken in specialization area courses (see listed core and
specialization courses). Six (6) credit hours are required for the research thesis.
n. Completion and presentation (through an oral defense) of a thesis to a committee composed of members of the environmental toxicology faculty and representatives of the Graduate School.
2. Fulfillment of general requirements for graduation as outlined by the Graduate School (see the General Information Section of this bulletin).

## THESIS

Students pursuing the master's degree must write and defend a thesis based on research done on an approved problem in environmental toxicology. The defense of the thesis will be made before the student's thesis committee.

## COURSE DESCRIPTIONS <br> Graduate Courses Environmental Toxicology

## CORE COURSE REQUIREMENTS

Master's students must finish a minimum of twelve (12) semester credit hours of core courses. Ph.D. students must finish a core of nine (9) semester credit hours.

## Core Courses

ES 901 ENVIRONMENTAL TOXICOLOGY (3) Topics illustrating toxic chemicals, their occurrence, structure, and the reactions underlying detection, toxicity, fate, and ecological importance.

ES 902 MECHANISMS OF TOXIC ACTION (3) Biochemical and physiological mechanisms underlying toxicity and detoxification. (Prerequisite: CHEM 445 or equivalent)
ES 903 GENERAL ECOLOGY (3) Ecological principles of biological systems, emphasizing populations and ecosystems. Principles of growth, regulation, distribution, structure, energetics, and mineral cycles related to the evolution of biological systems and applications to selected human ecological problems. Field trips required.

ES 904 THE OCEANS (3) Introductory survey of the marine environment. Oceanic physical-phenomena, chemical constituents geological history, and the sea's biota: Man's utilization of marine resources. Scientific method applied to the processes. Biota and history of the oceans and major scientific breakthroughs explored.

ES 905 ENVIRONMENTAL POLICY \& MANAGEMENT (3) An examination of selected topics in the formulation and implementation of environmental policy, with a principal emphasis on conceptual and methodological issues. Examination of recent research and practice in the evaluation of environmentally related policies, programs and plans.

ES 906 ENVIRONMENTAL GEOLOGY (3) The study of the influence of geologic processes and hazards on human activities. Emphasis will be placed upon topics of interest to students in environmental science and toxicology.

## Specialization Courses

ES 908 ANALYSIS OF TOXICANTS (3) Principles of the microanalysis of toxicants. Theoretical microanalysis of toxicants. Separation, detection, and quantitative determination of toxicants using chemical and instrumental methods. (Prerequisite: CHEM 332 Analytical Chemistry and consent of instructor.)

ES 909 ANALYSIS OF TOXICANT LABORATORY (3) Laboratory techniques for microanalysis of toxicants. Separation, detection, and quantitative determination of toxicants using chemical and instrumental methods. (Prerequisite: ES 908 (may be taken con- currently) or by consent of instructor)

ES 910 ORGANIC SYNTHETIC METHODS \& STRATEGIES (3) Provides a broadly based discussion of current strategies in synthetic organic chemistry. Focuses on methods of reconstructing carbon frameworks. Topics will also include relative stereo- chemistry and absolute stereo-chemistry. Retrosynthetic strategies will be discussed throughout the lectures. (Prerequisite: CHEM 232 or equivalent)

ES 911 GAS CHROMATOGRAPHY \& MASS SPECTROMETRY OF TOXIC CHEMICALS (3) Application of GC and MS techniques to investigate toxic chemicals. Mass spectral fragmentation and their application to structural identification and structural elucidation. Practical application of GC/MS in current research. (Prerequisite: CHEM 453 or equivalent)

ES 912 NEUROPHYSIOLOGICAL BASIS OF NEUROTOXICOLOGY (3) Mechanism of action of a number of different neurotoxins, including marine toxins, insecticides and heavy metals. Examples of ways toxins may act on the nervous system and techniques for the study of neurotoxicology.

ES 913 ADVANCED SIMULATION MODELING (3) Advanced techniques in simulation modeling, optimization and simulation, dynamic parameter estimation, linear model error propagation, and sensitivity testing; model evaluation in ecological and social systems .

ES 914 MODELING LABORATORY (3) Students must complete a series of exercises on advanced topics in modeling and a term project based on their graduate research.

ES 915 ADVANCED PHYSICAL CHEMISTRY (3) Principles and applications of statistical mechanics; ensemble theory; statistical thermodynamics of gases, solids, liquids, electrolyte solutions, polymers and chemical equilibria. (Prerequisite: Chemistry 432 or equivalent)

ES 916 CHEMISTRY OF NATURAL PRODUCTS (3) Advanced treatment of chemistry of naturally occurring compounds isolated from a variety of sources. Topics will include isolation, structure determination, chemical transformations, total synthesis, biological activity, and biosynthesis. (Prerequisite: CHEM 232 or equivalent)

ES 917 BIOORGANIC CHEMISTRY (3) Structured and function of biomolecules; molecular recognition; enzyme reaction mechanisms; design of substrates for I enzymes; enzyme engineering; design of artificial enzymes and application of enzymes in organic synthesis. Prerequisites: CHEM 232, CHEM 445 or equivalents)

ES 918 SPECIAL TOPICS IN ENVIRONMENTAL TOXICOLOGY (3) Special topics will be assigned and discussed in relation to new findings and trends in environmental toxicological study and research. (Prerequisite: Consent of the professor)

ES 919 SPECIAL TOPICS IN ENVIRONMENTAL TOXICOLOGY (3) Special topics will be assigned and discussed in relation to new findings and trends in environmental toxicological study and research. (Prerequisite: Consent of the professor)

ES 920 SPECIAL TOPICS IN ENVIRONMENTAL TOXICOLOGY (3) Special topics will be assigned and discussed in relation to new findings and trends in environmental toxicological study and research. (Prerequisite: Consent of the professor)

ES 921 SEMINAR IN ENVIRONMENTAL TOXICOLOGY (2) A discussion of pertinent diverse issues related to the field of environmental toxicology based on reports, lectures and field experiences. Attendance and/or participation in weekly seminar required. (Prerequisites: Consent of the professor)

ES 922 SEMINAR IN ENVIRONMENTAL TOXICOLOGY (2) A discussion of pertinent diverse issues related to the field of environmental toxicology based on reports, lectures and field experiences. Attendance and/or participation in weekly seminar required. (Prerequisites: Consent of the professor)

ES 923 SEMINAR IN ENVIRONMENTAL TOXICOLOGY (2) A discussion of pertinent diverse issues related to the field of environmental toxicology based on reports, lectures and field experiences. Attendance and/or participation in weekly seminar required. (Prerequisites: Consent of the professor)

ES 924 RESEARCH PROBLEMS - MASTER'S DEGREE STUDENTS (6) Supervised student research on approved problems suitable for the preparation of a thesis.

ES 925 RESEARCH AND DISSERTATION (3-12) Supervised research and dissertation preparation.

ES 926 INTERNSHIP (6) Supervised student participation in an assigned internship to gain practical knowledge and experience in environmental toxicological work.

Through a cooperative program with the University of Texas-Houston Health Science Center, students in the environmental toxicology program may register for approved courses at the University of Texas-Houston Health Science Center.

## Mathematics

The Department of Mathematics offers courses leading to the Master of Science degree in Mathematics: (1) Academic or Professional Program (for two-year college teaching, careers in industry or government, or preparation for doctoral study) and (2) Secondary Teaching Program.

## AIMS AND OBJECTIVES

The Department of Mathematics considers three factors in planning its program: (1) the mathematics activities in the academic mainstream of the United States: (2) the philosophy, aims and objectives of the University; and the past experiences of the students enrolled. In its graduate program, the Department seeks to accomplish the following objectives:
1.To provide mathematical training for elementary and secondary teachers, particularly those in urban schools.
2. To provide mathematical training for personnel in industry, government, and institutions of higher learning where higher mathematics is needed.
3. To explore and use the most effective methods for educating mathematics major consistent with the objectives of their degree programs.
4. To provide graduate students in mathematics an opportunity to engage in, research on new teaching methodology; the development of new teaching materials, preparation of expository papers; and exploration of new fundamental results.

The ultimate aim of the staff in the Department of Mathematics is to prepare graduate students who are competent practitioners of mathematics as the result their understanding of mathematical theory, and who are capable of serving as researchers, teachers, or applied mathematicians in various programs of industrial business and government.

## ADMISSION REQUIREMENTS

Students entering the graduate program are expected to have completed 21 semester hours of mathematics, including at least twelve (12) hours of calculus, at least 12 hours from the following (or courses equivalent to these): Mathematics 330, 333, $336,439,462,460,473$. Additional work and semester hours may be required for students who have not completed these courses. Any exceptions to these requirements must be approved by the department's graduate committee. The requirements for the master's degree in mathematics are as follows:

1. An examination on the fundamentals of mathematics before admission to candidacy.

A minimum of thirty semester hours of graduate work. Some 400 -level courses can be counted toward the master's degree, but at most two such courses. An acceptable thesis on the subject approved by both the Department of Mathematics and the Graduate School. Other general University requirements.

## DEGREE REQUIREMENTS <br> Master of Science - Mathematics

A student pursuing a degree in mathematics is required to enroll in the following courses:

| MATH 631 (3) | MATH 633 (3) |
| :--- | :--- |
| MATH 634 (3) | MATH 636 (3) |
| MATH 733 (3) |  |

Master of Education Degree<br>for Teaching Mathematics

## THE PROFESSIONAL CERTIFICATE

## A. Specialist Area

## REQUIRED

MATH 535
(3) MATH 536
(3) MATH 631
(3)

## ELECTIVES

Three semester hours in mathematics at the graduate level. B. Professional Development EDFD 584 (3) EDFD 589 (3) C. Resource Areas Six (6) semester hours in the student's second teaching field.
MATH 430*
(3) MATH 437*
(3) MATH 499*

## ELECTIVES

The student who wishes to qualify for the Professional Certificate and the Master of Education degree shall take, in addition to the 30 semester hours required for the Professional Certificate, the following courses:

EDFD $581 \quad$ Foundations of Education
EDFD 632 Techniques of Educational Research
EPSY 831 Educational Statistics

## COURSE DESCRIPTIONS <br> Undergraduate/Graduate Credit

MATH 430* THE HISTORY OF MATHEMATICS (3) General view of the development of the elementary branches of mathematics, growth of higher mathematics in the eighteenth and nineteenth centuries. (Prerequisite: Twelve hours of college mathematics)

MATH 433* CONCEPTS AND STRUCTURE OF MATHEMATICS (3) Structure of the number system, elements of set theory, properties of real numbers, and basic concepts of the mathematical systems. (Prerequisite: instructor's consent)

MATH 437* CONTEMPORARY MATHEMATICS AND ITS APPLICATIONS (3) Applications of various mathematical topics and mathematical needs of people in some of the trades, professions and scientific disciplines. (Prerequisite: Math 314 or instructor's consent)

MATH 439* ADVANCED CALCULUS (3) The real number system; elementary point set theory; sequences and series; continuity; differentiation and integration. (Prerequisites: Math 314 and Math 331 )

MATH 473* PROBABILITY AND STATISTICS I (3) Introduction to probability and statistical inference making use of the calculus developed in Math 241 and MATH 242. (Prerequisites: MATH 241 and 242)

MATH 474* PROBABILITY AND STATISTICS II (3) Moments of distributions and Stieltjes integral; joint density functions; conditional means; moment generating functions; sequences of random variables; distribution theory; and hypothesis testing. (Prerequisite: MATH 473)

MATH 475 INTRODUCTION TO MODERN ALGEBRA (3) Group theory; Lagrange's Theorem; Isomorphism Theorem; Cayley's Theorem; rings and fields. (Prerequisite: MATH 336 or instructor's consent)

MATH 499* SEMINAR (3) Various topics in mathematics discussed. (Prerequisite: Instructor's consent)

## Graduate

MATH 532 INTRODUCTION TO NUMBER SYSTEMS (3) Background concepts and terminology in sets, relations, mapping. Cartesian products; equivalence relations; elementary properties of the counting numbers; numeration systems; arithmetic in base 10 and bases other than 10; divisibility and primes; Euclidean Algorithm; Fundamental Theorem of Arithmetic consequences; the ring of integers mudulo m ; Fermat's Theorem, elementary properties of the rational numbers; existence of irrational numbers.

MATH 533 INFORMAL GEOMETRY (3) Fundamental concepts of set theory and logic. Incidence relations Measurement. Concepts of congruence. Theory of parallel lines. Alternative axioms. Metric properties of triangles; circles, cones, spheres, and pyramids. The coordinate plane and graphs.

MATH 535 ALGEBRA FOR TEACHERS (3) Sets, real number system, theory of polynomials, elementary functions, determinants and matrices.

MATH 536 GEOMETRY FOR TEACHERS (3) Foundations of geometry, nature of proof, coordinate systems, Euclidean, non-Euclidean and protective geometry.

MATH 577 FOURIER SERIES (3) Study of approximations of functions by orthogonal systems of functions; Fourier series; orthonormal systems and generalized Fourier series, applications to boundary value problems. (Prerequisites: MATH 314 and 333)

MATH 578 LAPLACE TRANSFORMS (3) Definitions and elementary properties; transform of discontinuous functions; inverse transformations; convolution theorems, application to ordinary differential equations. (Prerequisite. MATH 439)

MATH 599 RESEARCH AND CONFERENCE (3) May not be repeated for graduate credit. (Prerequisite: Graduate standing and twelve hours of senior undergraduate or graduate mathematics)

MATH 631 INTRODUCTION TO THE FOUNDATIONS OF MATHEMATICS (3) Evolution of Mathematical ideals and methods, relations to logic; the axiomatic method; the infinite paradoxes; contradictions. (Prerequisite. Graduate standing)

MATH 633 THEORY OF FUNCTIONS OF REAL NUMBERS (3) The fundamental part of the theory of functions of a real variable; the topology of the real line, limit, continuity, differentiation, Lesbeque measure, the Lesbeque integral. (Prerequisite: MATH 439)

MATH 634 THEORY OF FUNCTIONS OF COMPLEX VARIABLES (3) The fundamental part of the theory of functions of a complex variable; complex number system, limits continuity, derivatives of complex functions, integration in the complex domain. (Prerequisite: MATH 460 or consent of instructor)

MATH 636 TOPOLOGY (3) Introduction to the study of point set topology: topological spaces, metric space, the topology of the real line and real plane, continuous functions, homeomorphisms, product spaces, compactness, connectivity, separation theorems. (Prerequisites: MATH 462 and MATH 439 or instructor's consent)

MATH 637 FUNCTIONAL ANALYSIS (3) Introduction to functional analysis: finite and infinite dimensional vector spaces norms and inner products, Banach space, Hilbert space, L-space, linear operators. (Prerequisites: MATH 636 and MATH 633 or instructor's consent)

MATH 638 PARTIAL DIFFERENTIAL EQUATIONS (3) Definitions of equations and their solutions: method of Jacobi and Mange, solutions by quadrature, existence theorems, separation of variables, elliptic, parabolic and hyperbolic systems, and operational methods. (Prerequisites: MATH 376 and MATH 333)

MATH 732 THEORY OF NUMBERS (3) Elementary properties of integers, the theorems of Fermat and Wilson the theory of congruences, quadratic residues, the reciprocity theorem, Diophantine equations, definite and indefinite binary quadratic forms, ternary quadratic forms, regular and irregular forms. (Prerequisite: MATH 331)

MATH 733 ABSTRACT ALGEBRA (3) Advanced topics in modern algebra: generally the topics will be in one or more of the areas: group theory, theory of rings and fields, homological algebra. (Prerequisite: MATH 475)

MATH 790 INDEPENDENT STUDY: Graduate standing/Approval of advisor.
MATH 831 THEORY OF PROBABILITY (3) Theory of expectation, dependent and independent variables, Tchebycheff's in equality, the probability integral applications to statistical theory. (Prerequisite: MATH 473 and 474)

MATH 832 FINITE DIFFERENCES (3) Tables of differences, difference formulas, finite integration with applications, interpolation, approximate integration, beta and gamma functions, difference equations.

MATH 833 MATHEMATICAL STATISTICS (3) Moments, distributions of functions of random variable, internal estimation, limiting distributions, sufficient statistics, point estimation, and statistical hypothesis. (Prerequisite: MATH 474)

MATH 861 RESEARCH PROBLEMS (3) Investigation by the student of a specific problem in mathematics. (Prerequisite: Approval of the department chairperson)
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## Industrial Technology

## GENERAL PROGRAM DESCRIPTION

The Master of Science in Industrial Technology (MSIT) degree program is an interdisciplinary technical program designed to produce professional leaders, educators and trainers for contemporary technological society. Its primary focus is the application of basic science and technology to meet the challenges of high technology in the public and private sectors.

## PROGRAM OBJECTIVES

Specific objectives of the program include:

1. Preparing technology educators and administrators for positions in secondary and post secondary schools.
2. Preparing individuals to function as technology training directors in firms or agencies involved with high technology applications.
3. Preparing technology students for additional study toward the terminal degree.
4. Providing continuing education for the technical workforce in the public and private sectors.

Graduates of the program should be able to perform more creatively and competently in leadership roles involving planning, problem solving, and decision making in a technological setting.


#### Abstract

ADMISSION REQUIREMENTS Candidates for admission to the Master of Science in Industrial Technology (MSIT) degree program must have completed the baccalaureate degree from a regionally accredited institution. Undergraduate majors in technology are preferred, but majors in other areas will be considered. Undergraduate studies must have included courses in Computer Literacy, Mathematics and/or Statistics, and Technical Writing completed with grades of C or better. Applicants must have earned a minimum grade point average (GPA) of 2.5 overall, or 3.0 for the last 60 credit hours of undergraduate work. Certain deficiencies


in entry requirements may be remedied by completing appropriately prescribed undergraduate courses, upon the recommendation of the MSIT program advisor and the approval of the department chair. In such cases, conditional admission may be granted pending removal of all deficiencies.

## CURRICULUM

The curriculum for the Master of Science in Industrial Technology degree consists of 33 semester credit hours of approved graduate courses, including 16 hours of core curriculum, 6 hours of integrative component, 6 hours of program electives and no more than 6 hours of other elective courses. The program offers two options: thesis and non-thesis. The thesis option requires 27 hours of course work and 6 hours of thesis. The non-thesis option involves 30 hours of courses and 3 hours of an approved internship in a non-academic setting. Students who show evidence of significant and relevant technical work experience may request a waiver of the internship requirement.

Each student is responsible for preparing a degree plan in consultation with the program advisor, and obtaining required approvals, during the first semester of enrollment. The degree plan indicates chosen program option (thesis or internship), as well as courses to be completed for the degree. An approved copy of the degree plan must be filed in the Graduate School by the second semester of enrollment.

## CURRICULUM SUMMARY <br> Master of Science in Industrial Technology <br> Total Semester Credit Hours Required: 33

Core curriculum....................................................................................................... SCH
ITEC 620 (3) ITEC 633 (3) ITEC 638 (3) ITEC 690 (1)
ITEC 635 (3) ITEC 640 (3)
Integrative Component ............................................................................................................
ITEC 675 (3) ITEC 695 (3)

## Program Electives

Any graduate-level ITEC course not identified as core curriculum or integrative component course may be used to satisfy program elective requirements.

Any graduate-level course, except those used to satisfy other requirements of the program, may be used to satisfy other elective requirements. Students are however, encouraged to select courses that complement their primary field of study. Consultation with the program advisor is recommended.

## DEGREE REQUIREMENTS

In addition to the requirements of the Graduate School, candidates for the Master of Science in Industrial Technology must complete the 36 credit-hour curriculum prescribed on the student's approved degree plan with a grade point average of 3.0 or better, successfully complete the comprehensive examination, and complete and submit to the department chair two bound copies of a duly approved thesis or internship report.

The comprehensive examination may be attempted only upon completion of eighteen (18) semester credit hours of core-curriculum courses, and internships or thesis may be started only after successfully completing the comprehensive examination. It is the responsibility of each candidate for the degree to show evidence of having satisfactorily completed these requirements prior to the filing of an application for graduation with the Graduate School.

## COURSE DESCRIPTIONS

ITEC 531 POST HIGH SCHOOL TECHNICAL EDUCATION (3) Study of curricular, social, economic training needs and other changes responsible for the development of post-secondary education, with emphasis on Texas.

ITEC 535 SELECTION, ORGANIZATION \& PRESENTATION OF SUBJECT MATTER (3) Fundamentals of selecting and organizing teaching materials for industrial subjects to include preparation of job and informational teaching aids.

ITEC 540 OCCUPATIONAL AND CAREER EDUCATION (3) Basic philosophy of career-oriented education, including ideas and strategies for developing career-related continuing education programs.

ITEC 620 STATISTICAL PROCESS CONTROL (3) Overview of statistical techniques and signals used for improvement of industrial processes, differentiation of detection and prevention models for quality control; 6 SCH problem solving applications.

ITEC 625 OPERATIONS RESEARCH FOR TECHNOLOGISTS (3) Analytic tools for addressing complex industrial problems, including linear programming, network analysis, inventory, decision analysis, queuing and simulation models.

ITEC 633 INDUSTRIAL LABOR-MANAGEMENT RELATIONS (3) Evolution of labor-management relationships in the US and impact of technological changes; comparison with other industrialized nations and implications for global competition.

ITECH 634 HUMAN RESOURCE DEVELOPMENT (3) Examination of the human resource in industrial operations with emphases on planning, development and evaluation for technical manpower.

ITEC 635 TECHNOLOGY AND THE ENVIRONMENT (3) A study of ecological problems created by advanced technology and the utilization and application of technology to preserve the environment.

ITEC 637 FACILITIES PLANNING \& SYSTEMS ANALYSIS FOR TECHNICAL PROGRAMS (3) Innovations in planning to include space, equipment, industrial supplies, and educational specifications.

ITEC 638 SAFETY MANAGEMENT AND TECHNOLOGY (3) Concepts and techniques of safety management, industrial hygiene and ergonomics with applications.

ITEC 640 COMPUTER APPLICATIONS IN INDUSTRIAL TECHNOLOGY (3) Review of microcomputer hardware and software; survey of computer applications in industrial operations, including manufacturing, construction, distribution, and information systems.

ITEC 642 COMPUTER INTEGRATED MANUFACTURING (3) Evolution, scope, and development of CIM concepts and associated technologies, including numerical control, $\mathrm{CNC}, \mathrm{CAD} / \mathrm{CAM}$, and automation; applications and benefits of CIM.

ITEC 644 PRODUCTION SYSTEMS CONTROL (3) Overview of control methodologies for production systems, including production, capacity and materials requirements planning, scheduling, inventory, and productivity analysis.

ITEC 650 PROJECT ANALYSIS \& MANAGEMENT (3) Methods of analysis and scheduling of industrial projects, including cost estimating, economic analysis, selection and implementation; applications in manufacturing, construction and service industries.

ITEC 664 MATERIALS HANDLING SYSTEMS (3) Basic criteria for the selection and justification of material handling equipment; manual, mechanized and automated warehousing and storage/retrieval systems; robotics and flexible manufacturing systems.

ITEC 668 MODERN MANUFACTURING TECHNOLOGIES (3) Examination of the evolution and economies of current and emerging manufacturing technologies for industrial applications, including automation, CIM, FMS, JIT, etc.

ITEC 675 PROFESSIONAL PROBLEMS (3) Designed to provide the student an opportunity to choose a technical problem and develop a working hypothesis and propose alternate solutions. Problems affecting the urban community are stressed.

ITEC 680 ENERGY GENERATION SYSTEMS (3) Overview of fuel-based and alternative energy sources, comparative economic analyses and societal impact of alternatives and implications for technology.

ITEC 690 GRADUATE SEMINAR (1) Recent developments and issues in technology; technology trends and social impacts. Majors must take course in each semester enrolled for a minimum of 3 semester credit hours.

ITEC 692 SPECIAL PROBLEMS IN TECHNOLOGY (3) Individual study, which may be laboratory or field based, of a special technical problem of interest. A Student must demonstrate a mastery of technical material and research report writing.

ITEC 695 TECHNICAL INTERNSHIP (3) Minimum of 3 months (FTE) approved work in non-academic setting under supervision of a senior or management level technologist; work must be documented in technical report.

## Transportation Planning \& Management

## Master of Science Transportation Planning \& Management

## GENERAL INFORMATION

Graduate study in Transportation Planning and Management at Texas Southern University focuses on developing an interdisciplinary program which is designed to train outstanding students for successful careers in the field of transportation. Programmatic emphasis is on preparing the student to enter the public and private sector with considerable training and advanced knowledge concerning design, operations, planning, management, and performance evaluation of transportation systems. Emphasis is on technical, economic as well as public policy aspects of transportation systems.

For those focusing on planning or operations careers, the TSU transportation programs have a strong foundation in traffic operations, transportation planning, public transportation and Intelligent Transportation Systems (ITS). Students may structure degree programs to build on these strengths. For those pursuing management careers, TSU transportation programs have strong foundations in transportation principles, economics and finance, and transportation policy and management.

Through a rigorous graduate program of instruction, students can develop analytical and problem-solving, design, planning and systems analysis as well as appropriate research skills for use in public and private transportation-related agencies and organizations. Graduate students and their faculty advisors form research partnerships based on their particular interest and needs of transportation industry. Majors in transportation are provided with unique opportunities to work with transportation experts through the Center for Transportation Training and Research (CTTR) and Urban Traffic and Air Quality Lab (UTAQL) at Texas Southern University. The CTTR and UTAQL provide programs or training with specialized internships and research exposure through on-going applied and empirical research and demonstration activities.

## VISION

We envision an education, research, training, and technology transfer program designed to develop a skilled and educated workforce that is highly competitive in a global market. The academic research and training program serves as an important
resource of traffic and transportation engineers, planners, systems analyst, policy makers, business and industry leaders for local, state, and federal governments, community organizations and agencies, and consulting companies in the nation.

## MISSION

In keeping with the traditional and urban mission of Texas Southern University, the Division of Transportation Studies in the School of Technology will provide education that builds on the latest data, systems and technologies in transportation. In preparing the next generation of transportation professionals, particular attention will be given to attracting and retaining socially and economically disadvantaged individuals who have not been well-represented in higher level educational programs and among transportation professionals in the past. There is a strong commitment to partnership development and a climate wherein various racial/ethnic and culturally diverse groups can develop their full potential.

## GOALS AND OBJECTIVES

The primary goal of the academic program is to educate transportation planners, engineers and managers who are able to plan, functionally design and operate facilities and systems which satisfy the demand for both passenger and freight transportation services. To fulfill both the traditional and urban mission of Texas Southern University, the Transportation Studies Department has established strategic planning initiatives to fulfill both short- and long-term needs. The Transportation Studies Department shall:

- Improve and expand transportation education, training and research.
- Advance technology transfer and expertise.
- Foster sound linkages between the department, other University units, and the public and the private transportation sectors.
- Participate in local, state and federal research and training initiatives.

The principal objectives of graduate study in transportation are: (1) to provide students with the professional knowledge and skills needed to compete successfully in a global economy; (2) to enhance students' abilities to develop creative solutions to complex problems in the context of socioeconomic and environment considerations; and (3) to develop innovative ways to address transportation needs and problems.

The central focus of the academic program is to identify and respond to the training needs of the transportation industry; provide an environment which enables students to develop maximum potential; encourage visionary and creative thinking; provide varied internships and research opportunities which acquaint students with human knowledge and actual work experiences; offer transportation education and training programs directed toward career development in cooperation with business, industry, labor, and public service agencies; and identify and meet professional and in service training needs through specialized short-courses, conferences, symposia, and/or seminars.

## REQUIREMENTS FOR ADMISSION

Applicants must hold a bachelor's degree from an institution of acceptable standing and have a grade point average point of " B " or better in work completed during the last two years of undergraduate study. The bachelor's degree may be in engineering, urban/city planning, business, public administration, political studies, geography, sociology, airway science/aviation, avionics, economics, or other transportation-related fields.

The applicant must meet the criteria for admission to The Graduate School. Applications cannot be evaluated until these requirements are met and the completed application is received by the Graduate School. Application forms for admission may be obtained from: The Graduate School, Texas Southern University, 3100 Cleburne Avenue, Houston, Texas 77004. For information call The Graduate School at (713) 313-7233.

## ADMISSION OF INTERNATIONAL STUDENTS

Applications from international students are evaluated in the same manner as those of students from the United States. However, international students whose training has been in a language other than English must satisfactorily pass the Test of English as a Foreign Language (TOEFL) exam. This requirement is designed to determine whether students have a sufficient command of English to enable them to pursue their graduate studies effectively.

## DEGREE PROGRAM REQUIREMENTS

The Master of Science in Transportation Planning and Management degree program is structured to provide a common core of educational and training experiences as well as to provide the flexibility for interfacing with a variety of related disciplines. Efforts are made to equip students with basic analytical, managerial, and planning competencies necessary to either work in the transportation industry immediately or advance to doctoral study successfully.

Basic requirements for Master of Science in Transportation degree include:

1. Completion of a total of thirty-nine (39) semester credit hours of prescribed coursework.
2. A minimum of $3.0(\mathrm{~A}=4.00)$ quality point average for all graduate work attempted.
3. Demonstration of acceptable grasp of the core courses by successful completion of the written comprehensive examination.
4. Completion of an internship/project report for all non-thesis option students.
5. Completion and successful defense of a thesis with the quality of scientific research for all thesis option students.
6. All other requirements of the Graduate School in Texas Southern University.

## COMPUTER LITERACY

Students will be exposed to the use of computers and computer packages in transportation as part of the curricula. Emphasis is on personal and micro-computers. Students will use packages in highway capacity, traffic signal timing and coordination, traffic simulation and travel demand models in required course work. Students have access to TSU's personal computer laboratories with access to the Internet.

## THESIS

The culmination of the program is the successful completion and defense of a thesis which involves independent research. The thesis must be prepared in a way that demonstrates rigorous, independent, empirical or applied research. This option will require that the final product of independent research is prepared in a way that demonstrates that the student has acquired a high level analytical ability. The research must exhibit substantive depth, logical organization, high level of creativity, and clarity of ideas. A faculty committee guides the student's work and evaluates the thesis.

## INTERNSHIP

Students electing the non-thesis option are required to submit a final report on an investigation conducted while completing the internship or a project report assigned by the faculty advisor. Placements of internships will be sought with various public/private transportation agencies and firms.

## DEGREE REQUIREMENTS <br> Master of Science in Transportation Total Semester Credit Hours Required: 39

Core Curriculum ..... 15 SCH
A. Thesis Option *
Electives ..... 15 SCH
Thesis. ..... 9 SCH
B. Non-Thesis Option *
Electives ..... 21 SCH
Internship/Project Report ..... 3 SCH
Total ..... 39 SCH* Total = Core Curriculum and either A* or B*

2. Concentration and Electives...............................................................................-2-21 SCH
A. Planning

| TMGT 820 (3) | TMGT 840 (3) | TMGT 845 (3) |
| :--- | :--- | :--- |
| TMGT 850(3) | TMGT 855 (3) | TMGT 862 (3) |
| TMGT 865 (3) | TMGT 880 (3) | TMGT 890 (3) |

B. Policy and Administration

| TMGT 820 (3) | TMGT 825 (3) | TMGT 840 (3) |
| :--- | :--- | :--- |
| TMGT 845 (3) | TMGT 865 (3) | TMGT 870 (3) |
| TMGT 880 (3) | TMGT 890 (3) | TMGT 892 (3) |

C. SYSTEM ANALYSIS
TMGT 840 (3) TMGT 845 (3) TMGT 850 (3)
TMGT 855 (3) TMGT 862 (3) TMGT 865 (3)
TMGT 880 (3) TMGT 890 (3) TMGT 892 (3)


## COURSE DESCRIPTIONS Master of Science in Transportation Planning \& Management

TMGT 810 Fundamentals of Transportation (3) This course presents an introduction to the organizational, economic, social, and environmental aspects of transportation; historical development and characteristics of various modes of travel including rail, highway, air, pipeline and water transportation; comparative analysis of domestic and international systems; and administration of public transportation by providers, carriers and government.

TMGT 812 Principles of Transportation Design \& Engineering (3) This course presents criteria and parameters for the design and engineering of streets and highways, railroads and transit guideways, land transportation terminals, and air and water transportation facilities. Design considerations include system components, such as human factors, environmental constraints, and operational factors; Intelligent Transportation Systems (ITS) and other emerging technologies.

TMGT 815 Computer Applications in Transportation (3) This course is an introduction to basic computer software for planning and analysis of transportation operations. Both general purpose and specialized software in such areas as traffic engineering, highway operations, transit operations and transportation planning will be considered. Examples of software to be covered include CORSIM, TRANSYT-7F, INTEGRATION, SYNCHRO, HCS, QRS II, etc.

TMGT 820 Transportation Management \& Policy (3) This course presents elements of the transportation environment; formulation and determinants of national, regional and urban/rural transportation policy; roles of regulation and community attitudes; and other impacts on transportation policy.

TMGT 823 Economics of Transportation (3) This course presents economic characteristics of selected transportation technologies; capital and operational costs of highway and public transportation modes; financing mechanisms and revenue sources for various modes; economic evaluation of alternative systems; cost effectiveness; micro-economic theoretical tools, investment appraisal, and pricing techniques.

TMGT 825 Marine Transport Systems (3) This course presents types of ocean transportation and port facilities, role of port authorities in international transportation; domestic waterway operations; international water carriage; and elements and factors involved in international trade and their impact on transportation and marketing.

TMGT 830 Urban Transportation Planning (3) This course presents perspectives on the context and approaches to planning for public transportation services; long range versus short range planning; the program development process for transportation systems management (TSM) strategies and the comprehensive planning process; and alternative approaches to planning and citizen participation.

TMGT 840 Quantitative Analysis of Transportation (3) This course is an introduction to analytic tools for operational and managerial decision making in transportation, including linear programming, dynamic programming, network analysis, queuing analysis and simulation.

TMGT 845 Transportation Systems Analysis (3) This course presents the system approach and its application to transportation engineering and planning; the transportation industry as a productive system; the use of Transportation System Management (TSM) strategies; and systems analysis techniques including optimization, evaluation and systems modeling.

TMGT 850 Travel Demand Forecasting \& Analysis (3) This course presents travel demand forecasting theories and applications. It presents traditional four-step travel demand forecasting models: trip generation, trip distribution, modal split, and traffic assignment, as well as activity-based travel demand forecasting methods. Computer models to be covered include QRS II, EMME2, TransCad, and TRANSIM.

TMGT 855 Dynamics of Highway Systems Management (3) This course presents a review of components of highway systems management, including design options, traffic control devices, pavement and lighting analysis and introduction of Intelligent Transportation Systems (ITS) capabilities; examination of highway system organizations and roles within the transportation community, freeway surveillance, and incident management.

TMGT 862 Highway Traffic Operations (3) This course presents factors related to freeway operations and traffic signal operations: macroscopic and microscopic traffic stream characteristics, capacity analysis techniques, shock wave theory, freeway traffic management systems, freeway traffic simulations, and evaluation and optimization of traffic signal timings. Software to be covered in this course includes HCS, INTEGRATION, CORSIM, and TRANSYT-7F.

TMGT 865 Traffic Signals and Signal Control (3) This course will presents the basic elements of traffic signals and signal timings including controllers, cycle length, phase structure, offset, change interval, all-red-interval, and split-phase; signal warrants that are included in the Manual on Uniform Traffic Control Devices (MUTCD); traffic signal timing optimization and evaluation software such as TRANSYT-7F, PASSER, TEAPAC, SYNCHRO, CORSIM, etc.; real-time traffic signal control systems such as SCOOT, SCATS and RT-TRACS; and relations of traffic signal operations with other elements of ITS applications.

## TMGT 870 Freight and Logistics Management (3)

This course presents U.S. and international movement of goods, including railroads, trucking, air carriers and ocean transport; coordination between the modes; principles of logistics management.

TMGT 880 ITS Technologies and Applications (3) This course introduces the basic concepts and applications of the Intelligent Transportation Systems (ITS) technologies. Selected technologies in each category of ITS User Services that are defined in The National Architecture for ITS are introduced. Methodologies for evaluating the effectiveness and efficiency of ITS systems will be introduced with an emphasis on the advanced simulation models. The selected deployment examples of ITS systems will be examined to identify the policy, institutional and technological barriers that effect the ITS development and deployment.

TMGT 890 Transportation Seminar (3) This course provides an opportunity for students and the instructor to discuss recent developments and issues in transportation, i.e., policies, energy and environmental issues, notably implementation of the Clean Air Act Amendments (CAAA); urban air quality and the economic impact of various strategies, and applications of advanced technologies in transportation including the Intelligent Transportation Systems (ITS).

TMGT 892 Problems in Transportation (3) This course is an individual study of special problems, current and emerging issues in transportation conducted under supervision of a faculty member. Student must complete core curriculum prior to enrolling in this course. Approval of graduate advisor is required.

TMGT 895 Internship (3) Students enrolled in this course are required to submit a written report of the internship or project experience, detailing the specific tasks performed, contributions and the organizational setting is required.

TMGT 899 Thesis (3) Students enrolled in this course are required to submit a written research thesis. Thesis must be the product of independent research and must exhibit substantive depth, logical organization, and clarity of presentation. A faculty committee will evaluate the student's progress, and the thesis. A thesis option student needs to enroll three times in this course in order to get the required 9 semester credit hours.


## College of Liberal Arts and Behavioral Sciences



## College of Liberal Arts and Behavioral Sciences

## Communications

The Department of Communications currently offers one graduate degree, the Master of Arts in Communications with two curricular choices: Mass Communications and Speech Communications. In offering this degree, the Department seeks to achieve the following objectives:

1. To prepare students for further study toward the Ph.D. degree.
2. To train students in the techniques used by mass communication media so that they may enter communication fields as practicing professionals with a potential for upward mobility.
3. To provide upper-level service courses to public school and junior college teachers seeking either professional certification or a master's degree for teachers offered through the College of Education


#### Abstract

ADMISSIONS CRITERIA In addition to the general requirements for admission to the Graduate School (see the General Information Section of this catalog), applicants for admission to graduate standing in Communications are expected to present evidence of having completed a minimum of twenty-one (21) undergraduate semester credit hours above the freshman level in their chosen option.


## DEGREE REQUIREMENTS

## Master of Arts in Communication

Fulfillment of the general requirements for graduation as outlined in the General Information Section of the Graduate School Bulletin, and specific requirements for the Master of Arts in Communications as summarized below:

- Completion of thirty (30) semester credit hours of graduate level courses (usually 500 level or above), fifteen (15) of which will be Communication core courses and fifteen (15) in the chosen area of specialization;
- Satisfactory performance on the written comprehensive examination prior to enrolling in the research or internship components; and
- Thesis option: Completion and presentation, through oral defense, of a thesis before a committee composed of members of the Department of Communications and representatives of the Graduate School; or
- Non-thesis option: Completion of a full-time internship in the media industry (Telecommunications Administration).


## CURRICULUM SUMMARY <br> Master of Arts in Communications

The Department Communications offers two programs leading to the Master's degree:

1. Plan A - Master of Arts degree - a minimum of thirty (33) semester credit hours of course work and an acceptable research project.
2. Plan B - Master of Arts - a minimum of thirty-six (36) semester credit hours including internship.

Students who select either Plan A or B must meet the general requirements for all graduate students as prescribed in this bulletin. Degree plans must be approved by the graduate program advisor prior to submission to the Graduate School.

## PLAN A <br> Master of Arts (Thesis)

This plan is designed to provide instructional enhancement to meet the needs of teachers, practitioners and others who wish to supplement their undergraduate education arid expand their research capabilities in Communications through study beyond the master's degree.

## Allocation of Thirty-Three Semester Credit Hours <br> Course Requirements

General Requirements: Minimum thirty-three (33) semester credit hours and professional paper or research project
(thesis).

1. Core Courses (Required) 18 SCH

CM 533 (3) CM 534 (3) CM 634 (3) CM 698 (3) JOURN 531 (3)
SC 552 (3)
2. Major Courses (Required) $\qquad$
Journalism Track
JOURN 539 (3) JOURN 542 (3) JOURN 550 (3) JOURN 571 (3) JOURN 590 (3)
Speech Track
SC 543 (3) SC 549 (3) SC 551 (3) SC ELECTIVES (6)

## Telecommunications Track

TC 538 (3) TC 539 (3) TC 561 (3) TC Electives (6)
TOTAL
.33 SCH

## PLAN B <br> Master of Arts (Non-Thesis)

This plan is designed to provide instruction to prospective and in-service teachers, practitioners, professional career students and others who wish to supplement their undergraduate education.

General Requirements: A minimum of thirty-six (36) semester credit hours including internship.

## Allocation of Thirty-Six Semester Credit Hours <br> Course Requirements

1. Core Courses (Required) ..... 24 SCHCM 534 (3) JOURN 531 (3) SC 552 (3) TC 539 (3) TC 561 (3)TC 590 (3) TC 664 (6)
2. Cognate Courses ..... 3 SCH
PAD 508 (3)
3. Major Courses ..... 9 SCHTC 538 (3) TC 562 (3) TC 563 (3)
TOTAL ..... 36 SCH

## Communications

CM 533 THEORY \& PROCESS OF COMMUNICATION (3) Concepts in communication theory; examination of theories and principles relating to the communication process. Required for the Master of Arts degree in Communications.

CM 534 INTRODUCTION TO GRADUATE RESEARCH IN COMMUNICATIONS (3) Introduction to historical, experimental, descriptive and creative methodologies in communications; design and implementation of research topics. Required for the Master of Arts degree in Communications.

CM 634 ADVANCED COMMUNICATION RESEARCH METHODS (3) Methodology of sampling, design and analysis utilized in field studies; operationalization of communication variables; basic principles of measuring attitudes and information levels. (Prerequisites: CM 534 and consent of instructor)

CM 698 RESEARCH PROJECT (THESIS) (3) Directed individual study on specific Communications thesis topic. (Prerequisite: Approval of graduate advisor)

## Journalism Advanced Undergraduate/Graduate

JOURN 432 EDITORIAL WRITING (3) Training in editorial research and preparation and editorial articles. (Prerequisite: JOURN 332)

JOURN 437 FEATURE WRITING (3) Researching and writing feature stories, such as human interest stories, the personal column. (Prerequisites: JOURN 132, JOURN 238)

JOURN 443 ADVANCED BROADCAST NEWS (3) Advanced training and practice in broadcast news production. Emphasis on production of portfolio quality material. (Prerequisites: JOURN 133, JOURN 342)

JOURN 453 NEWS EDITING II (3) Advanced training and practice in editing for specialty publications, book publishing, pagination and other electronic techniques. (Prerequisite: JOURN 253)

## Graduate

JOURN 531 SEMINAR IN MASS COMMUNICATIONS (3) Cultural, economic, political and social factors which affect communication at the international level; role of communication in affecting social change in relation to developing countries.

JOURN 539 INTERNATIONAL COMMUNICATION SYSTEMS (3) Analyzes cultural, economic, political and social factors which affect communication at the international level. The role of communication in affecting social change is reviewed in relation to newly developing countries.

JOURN 542 COMPUTERIZED NEWS ROOM PROCEDURES AND PRACTICES (3) Professional level use of common computer language and VDTs, CRT's and other electronic devices used in today's news rooms.

JOURN 550 JOURNALISM SEMINAR (3) Study of selected topics in an identified area of journalism. May be repeated for credit as often as topic changes.

JOURN 571 LITERATURE OF JOURNALISM (3) Literary aspects of journalism exemplified in the works of American and English writers, past and present.

JOURN 590 MEDIA MANAGEMENT (3) Analyzes the management decision-making process in media (radio, television, and print) with particular reference to program policies, sales and personnel administration.

## Speech Communication Advanced Undergraduate/Graduate

SC 431 NONVERBAL COMMUNICATION (3) The analysis of nonverbal aspects of human communication with special consideration of physical and spatial styles and cues.

SC 432 INTER CULTURAL COMMUNICATION (3) The importance of cultural and ethnic differences as they affect our communication processes in various aspects of personal relations.

SC 434 PRINCIPLES OF LEADERSHIP (3) The study of the phenomenon of leadership, leadership styles, and techniques including parliamentary procedure and other strategies of control and influence.

SC 435 ADVANCED PUBLIC ADDRESS (3) The study, criticism and application of the principles and forms of public communication such as oratory, lectures, sermons, argumentation and debate in a variety of public forums.

SC 436 BLACK RHETORIC (3) Analysis of rhetorical strategies used by Black Americans to influence agitation and control public policy; emphasis on social, economic and political developments in twentieth century rhetoric.

SC 438 ORGANIZATIONAL STRUCTURE AND COMMUNICATION BEHAVIOR (3) An analysis of the interdependence of organizational goals and communication behavior from the standpoint of those who must recognize, understand, or design communication systems.

SC 439 PERSONNEL MANAGEMENT AND TRAINING (3) Practice in designing, conducting, and evaluating training programs and workshops for human resource development.

SC 462 LANGUAGE ACQUISITION AND DEVELOPMENT (3) How verbal and nonverbal language develops in children; how they learn the selection of appropriate communication strategies for effective adjustment and satisfactory relationships.

## Graduate

SC 532 HISTORY AND ANALYSIS OF RHETORICAL THEORY AND CRITICISM (3) Study of the history and tradition of rhetorical theory , criticism and pedagogy practiced in western civilization from the pre- Socratic to the present.

SC 543 THE ETHNOGRAPHY OF COMMUNICATION (3) In-depth study of effective methods of observing, recording, and evaluating materials for description and analysis utilizing tape recordings, cinematography and/or linguistic transcription.

SC 549 SEMINAR IN INTERPERSONAL COMMUNICATION (3) Models, theories, and variables related to communication in relatively unstructured face-to-face communication.

SC 550 PROBLEMS (3) Analysis of current research in problems peculiar to the field of speech. Comparison of contemporary theories, emphasis on predictions of future theories in speech and cognate communication. May be repeated as topic changes.

SC 551 STUDIES IN PUBLIC COMMUNICATION (3) Theories of persuasion and their application to legal, religions, and political-governmental communication and historical movements. May be repeated once for credit when major focus changes.

SC 552 ORGANIZATIONAL COMMUNICATION THEORIES (3) Dimensions and levels of communication behavior in complex organizations.

## Telecommunications Advanced Undergraduate/Graduate

TC 435 WRITING II (3) Specialized principles of script writing for broadcast, film, multimedia. (prerequisite: TC 335)
TC 438 TELEVISION AND RADIO IN SOCIETY (3) Analysis and assessment of broadcasting on society; television and radio content is scrutinized. (prerequisite: TC 331 )

TC 462 EMERGING TECHNOLOGIES (3) An examination of new and developing technology in electronic and other non-print media and potential impact on established systems.

TC 498 PERSPECTIVES ON NATIONAL \& INTERNATIONAL SYSTEMS OF BROADCASTING (3) Comparative analysis of domestic and international systems of broadcasting.

## Graduate

TC 538 IMPACT OF ELECTRONIC TECHNOLOGY (3) Effects of the development of electronic technology on the functions of the broadcast industry.

TC 539 INTERNATIONAL BROADCASTING SYSTEMS (3) Cultural, economic, political and social factors which affect communication at international level; role of communication in affecting social change in relation to developing countries.

TC 550 PROBLEMS IN TELECOMMUNICATIONS (3) Analyzes the management decision-making process in media (radio, television, and print) with particular reference to program policies, sales and personnel administration. May be repeated as topic changes.
TC 561 BROADCAST SEMINAR (3) An in-depth examination of broadcasting, reviews practices, impact, audience behavior and other factors.

TC 562 ALTERNATIVE COMMUNICATIONS MEDIA SYSTEMS (3) An in-depth examination of the role played by new developments in electronic media communication systems such as video, laser, etc.

TC 563 VIDEO DESIGN FOR HUMAN RESOURCE DEVELOPMENT (3) Concepts and principles of design in training approaches using videotape. Discusses selection and development of design elements to attain communication objectives.

TC 590 MEDIA MANAGEMENT (3) Analyzes the management decision-making process in media (radio, television, and print) with particular reference to program policies, sales and personnel administration. \{Same as JOURN 590)
TC 664 GRADUATE PRACTICUM (3) Student is placed in a full-time position in the media industry. (Prerequisites: Students must have completed all course work, must have successfully passed the comprehensive examination, and must have an approved application for internship. Also, an acceptable site must be available)

## Allocation of Thirty Semester Credit Hours <br> Course Requirements



PLAN B
Master of Arts (Non-Thesis)
This plan is designed to provide instruction to prospective and in-service teachers, practitioners, professional career students and others who wish to supplement their undergraduate education. General Requirements: A minimum of thirty-three (33) semester credit hours.

## Allocation of Thirty-Three Semester Hours Course Requirements

## Core Courses ( 9 SCH required)

CM 533 (3) CM 534 (3) CM 634 (3)
Major Courses (Required)*
24 SCH
Journalism Track
JOUR 531 (3)**JOUR 539 (3) JOUR 542 (3)**
JOUR 571 (3) JOUR 590 (3) ELECTIVE (3)

## Speech Track

SC 543 (3) SC 549 (3) SC 550 (3)**
SC 551 (3)**
Telecommunications Track

| TC $538(3)$ | TC $539(3)$ | TC $561(3)^{* *}$ |
| :--- | :--- | :--- |
| TC $562(3)^{* *}$ | TC $563(3)^{* *}$ | TC $590(3)$ |

ELECTIVE (3)
TOTAL 33 SCH

Students in the Telecommunications Track may take TC 664 (6) with prior approval from the graduate program advisor. This course may replace six (6) semester credit hours, as required above, with the advice of the graduate program advisor.

* May include courses repeated.
** Students may repeat course as topic changes.


## DEGREE REQUIREMENTS <br> Master of Arts in Communication

Fulfillment of general requirements for graduation as outlined in the General Information Section of the Graduate School Bulletin, and specific requirements for the Master of Arts in Communications as summarized below:

- Completion of thirty (30) semester credit hours of graduate level courses, fifteen (15) of which will be communication core, and fifteen (15) in the chosen area of specialization (Thesis Option); completion of thirty-three semester credit hours of graduate level courses, nine (9) of which will be in the communication core, and twenty-four (24) in the chosen area of specialization (Non-thesis Option).
- Thesis option: Completion and presentation, through oral defense, of a thesis before a committee composed of members of the Department of Communications and representatives of the graduate school; or
- Non-thesis option: Satisfactory performance on the written comprehensive examination after completion of the required course-work. Students in the Telecommunication Track may, with the approval of the graduate program advisor, select an internship in the media industry, but must also successfully write the comprehensive examination.


## CURRICULUM SUMMARY

Master of Arts in Communications
The Department of Communications offers two programs leading to the Masters degree:

1. Plan A - Master of Arts degree - a minimum of thirty (30) semester credit hours of coursework, including thesis.
2. Plan B - Master of Arts degree - a minimum of thirty-three (33) semester credit hours. With the approval of the graduate student advisor, students in the Telecommunications Track have the option of choosing an internship to satisfy six (6) of the thirty-three (33) semester hour requirement.

Students who select either Plan A or Plan B must meet the general requirements for all graduate students as prescribed in the bulletin. Degree plans must be approved by the graduate program advisor prior to submission to the Graduate School.

## Plan A

Master of Arts (Thesis)
This plan is designed to provide instructional enhancement to meet the needs of teachers, practitioners, and others who wish to supplement their undergraduate education and expand their research capabilities in Communications beyond the Master's Degree.

## COURSE DESCRIPTIONS <br> Telecommunications

TC 538 IMPACT OF ELECTRONIC TECHNOLOGY (3) The impact of the change from conventional to digital technology on the mass media industries.

TC 539 INTERNATIONAL MEDIA SYSTEMS (3) Cultural, economic, political and social factors affecting electronic communication internationally; the role of electronic communication in affecting social change in developed and developing countries. Offered as needed.(Same as JOURN 539)

TC 550 PROBLEMS IN TELECOMMMUNNICATIONS (3)** Analyzes the management decision-making process in electronic media with particular reference to program policies, sales and personnel administration. Offered as needed.

TC 561 SEMINAR IN ELECTRONIC MEDIA (3)** An in-depth examination of the electronic mass media: reviews, practices, impact, audience behavior and other factors.

TC 562 EMERGING TECHNOLOGIES (3)** An in-depth examination of the role played by new developments in converging media technology.

TC 563 NEW VIDEO APPLICATIONS** Principles and concepts of internet media use. Applications for utilization of streaming audio, video, teleconferencing and other associated systems. Offered as needed.

TC 590 MEDIA MANAGEMENT (3) Analyzes the management decision-making process in mass media, radio, television, print and the internet, primarily with reference to programming policies, sales, and personnel administration. (Same as JOURN 590)

TC 664 GRADUATE PRACTICUM (6) Student is placed in a position in a media industry. Offered as needed.(Prerequisites: Completion of all coursework, passing of a comprehensive examination, approval of the graduate program advisor and the Graduate Practicum director, availability of an acceptable site).

## ** May be repeated as focus changes

## Speech Communications

SC 543 THE ETHNOGRAPHY OF COMMUNNICATION (3) In-depth study of effective methods of observing, recording, and evaluating materials for description and analysis utilizing tape recordings, cinematography and/or linguistic transcription.

SC 549 SEMINAR IN INTERPERSONAL COMMUNICATION (3) Models, theories, and variables related to communication in relatively unstructured face-to-face communication.

SC 550 PROBLEMS IN SPEECH COMMUNICATION (3)** Analysis of current research problems peculiar to the field of speech. Comparison of contemporary theories, emphasis on predictions of future theories in speech and cognate communication.

SC 551 COMMUNICATION THEORIES AND APPLICATIONS (3)** Comprehensive investigation of theories and applications in the major areas of communication. Emphasis to be placed each semester on rhetoric, interpersonal, intercultural or organizational theory emphases.

SC 552 ADVANCED ORGANIZATIONAL COMMUNCATION (3)** Dimensions and levels of communication behavior within complex organizations with special emphasis on varied organizational structures.
** May be repeated as focus changes.

## English, Foreign Languages \& Reading

The Graduate Program in the Department of English, Foreign Languages, and Reading focuses on literary studies and leads to the Master of Arts in English. The program is structured to offer students a broad-based survey of the literary canon, while engaging them in an in-depth study of major literary genre. Emphasizing the transmission of history, canonic placement and critical reception of the works of major authors, the program provides students myriad opportunities to apply various methods of literary research. The primary aim of the curriculum is to prepare graduates to assume roles as scholars and teachers in the area of literature.

## ADMISSION CRITERIA

Applicants to the Master of Arts in English must be admitted to the Graduate School of Texas Southern University. The admissions review process entails meeting all of the specified criteria of the Graduate School and those specified for admission to the Graduate Program of the Department of English, Foreign Languages and Reading. To receive full admission status to the graduate curriculum in English, students must meet the following criteria:

1. a cumulative grade point average of 2.75 in under graduate studies and a 3.0 in undergraduate literary studies;
2. completion of 12 semester hours of foreign language in the undergraduate curriculum; and
3. applicants must present a Graduate Record Examination (GRE) scores (combined verbal and quantitative) which are considered along with the applicant's undergraduate grade point average. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
4. The applicant's performance during a personal interview.

Students whose application materials reflect fewer than 21 hours in English will be required to enroll in certain undergraduate courses to remove noted deficiencies. These applicants will be reconsidered for admission after the designated requirements are satisfied.
*A norm for performance on the GRE will be established every three years. This norm will be determined by deriving the average scores of students admitted to the graduate program in English for the previous three years.

## DEGREE REQUIREMENTS

## Master of Arts in English

Students must pass the English Proficiency Examination or complete English 501.
Students must demonstrate mastery of literary research techniques and literary theory on a qualifying examination to be administered after they have successfully completed nine hours of graduate study. Students who do not pass the qualifying examination will be provided an opportunity to demonstrate proficiency in literary research and literary theory after eighteen hours of graduate study have been successfully completed. A student's failure on the qualifying examination, after eighteen credit hours have been earned, will result in his/her suspension from the program.

Students must pass a foreign language examination in Spanish or French before completing the last 12 semester credit hours of study.

Students must complete a total of 36 semester credit hours for the master's degree, 30 semester hours of course work and 6 hours of thesis credit.

Students must maintain a 3.0 cumulative average. No more than 6 semester hours may be completed with grade below B; a grade of "D" or "F" cannot be used toward the satisfaction of degree requirements.

Students may satisfy up to 6 of the 36 semester credit hours by satisfactorily completing 400 -level English courses which are designated as senior / graduate courses.

Students must complete the special field examination in literature of the Graduate Record Examination upon completion of the course work for the M.A. in English.

Students must complete a thesis under the direction of an English professor who holds regular graduate faculty status.

## CURRICULUM SUMMARY <br> Master of Arts in English Degree Plans

The Master of Arts in English is designed to provide students instruction which will enhance the preparation of secondary English teachers and others who wish to supplement their undergraduate preparation and expand their research capabilities. The emphasis of the program is literary studies. The program curriculum is divided into three areas: (1) literary theory and criticism; (2) genre studies; and (3) topical studies. The degree plan requires students to take courses in the designated core areas and in the several categories of literary studies.

Core Courses: English 533-Methods of Literary Research; English 502-Studies in English Linguistics; English 638-Studies in Literary Theory

Students must complete all of the core courses. With the guidance of an advisor, students may select an additional 21 semester hours of course work from the following categories.

## Courses in Literary Studies

Genre Courses: English 529-Studies in Literary Biography; English 530-African American Short Fiction; English 732-The American Novel; English 734-Studies in Modern American Poetry

Literary Theory and Criticism Courses: English 638-Studies in Literary Theory; English 735-Modern Literary Criticism; 502-Studies in English Linguistics

## COURSE DESCRIPTIONS <br> English

ENG 501 GRADUATE PROFESSIONAL WRITING (3) A graduate writing workshop which will engages students in methods for development of longer analytical essays and lay the foundations for the master's thesis and doctoral dissertation. Highly recommended for students who need special assistance in organizing research findings for the thesis and dissertation. (Prerequisite: Graduate standing)

ENG 529 STUDIES IN LITERARY BIOGRAPHY (3) A study of the relationship of author and text in the works of notable British and American writers. (Prerequisites: Graduate Standing)

ENG 530 AFRICAN AMERICAN SHORT FICTION (3) An examination of the presentation of the passage from slavery to free personhood in select texts of African American short fiction, with a special concentration on rhetorical structure.

ENG 532 LITERATURE OF THE AFRICAN DIASPORA (3) A study of selected poetry, fiction, and drama of the African continent. (Prerequisite: Graduate standing)

ENG 533 METHODS OF RESEARCH (3) An introduction to techniques of independent graduate study, with emphasis on bibliographical studies and textual criticism. Recommended for the first semester of graduate study. (Prerequisite: Graduate standing)

ENG 629 SELECTED TOPICS IN BRITISH LITERATURE (3) An examination of the major developments in the poetry, drama or fiction of significant British authors. Topical selection will vary according to the essential knowledge requirements of students and the recommendations of the professor teaching the course.

ENG 638 LITERARY MOVEMENTS (3) An historical survey of theories of literary criticism from Aristotle to the present. (Prerequisite: Graduate standing)

ENG 640 SPECIAL TOPICS IN BRITISH LITERATURE (3) An examination of special topics focusing on the lore, myth and other literary conventions in the poetry, drama, or fiction representative of diverse cultures and ethnic groups in America. Topical selection will vary according to the essential knowledge requirements of students and the recommendations of the professor teaching the course.

ENG 732 THE AMERICAN NOVEL SINCE 1945 (3) A study of selected American novelists and several of their representative works in conjunction with concurrent critical theories of the novel as a major literary genre, as social statement, and as cultural symbolism. (Prerequisites: English 533 and 638)

ENG 734 SEMINAR IN MODERN AMERICAN POETRY (3) An examination of the primary trends in modern American poetry, devoting attention to the masterpieces in the canon and engaging students in a systematic study of the techniques and philosophical tendencies in these works. (Prerequisites: English 533 and 638)

ENG 735 SEMINAR IN MODERN LITERARY CRITICISM (3) A study of the development of major trends in literary criticism during the modern era. (Prerequisites: English 533, 638 and 732)

ENG 837 THESIS IN PROGRESS (6) The writing of the thesis under the supervision of a thesis advisor from the graduate faculty of the Department of English. (Prerequisite: All preceding requirements for Master of Arts)

## Fine Arts

The Department of Fine Arts currently offers the graduate degree, Master of Arts in Music. The Department seeks to achieve the following objectives through its academic program:

1. To prepare students for advanced study toward the doctorate degree.
2. To provide continuing education for professional musicians.
3. To prepare performers and teachers to make a contribution in the fields of performance and general education.

## ADMISSION CRITERIA

Applicants for admission to graduate standing in the Department of Fine Arts are expected to hold the Bachelor of Music or an equivalent Bachelor of Arts or Bachelor of Science degree with a satisfactory major in music. Applicants whose academic background and preparation are considered inadequate will be required to take certain undergraduate courses either prior to or along with their graduate work.

In addition to meeting the general requirements of the Graduate School, all applicants for the graduate degree in the Department of Fine Arts are required to (1) take a qualifying examination and (2) pass the written comprehensive examination.

Qualifying Examination. Applicants for degrees at the master's level must be proficient in all courses taken at the undergraduate level. Qualifying examinations will be administered in performance, composition, theory, and music literature. Auditions in each applied area will be administered by the applied faculty. All students must enroll in an applied area.

Comprehensive Examination. The written comprehensive examination covers the major field of study and such minor subjects as are directly related to the major field.

## DEGREE REQUIREMENTS

Master of Arts in Music

1. A minimum of thirty (30) semester credit hours of which at least fifteen (15) semester credit hours shall be in applied music, composition, and advanced theory or in musicology.
2. A reading knowledge of a foreign language.
3. A graduate recital and lecture.

## CURRICULUM SUMMARY Allocation of 30 Semester Credit Hours Course Requirements

1. Required Courses

Required Courses .............................................................................................. 25 SCH
Applied Music 512 (1) Applied Music 522 (2) Applied Music 523 (2)
25 SCH

Applied Music 521 (2) Applied Music 524 (2)
*Music 530 (3) Music 511 (1) Music 640 (1)
Music 641 (3) Music 642 (1) Music 643 (3)
Music 644 (1) Music 646 (1) Music 647 (3)
Music 600 (0)
*To be listed dually with music 481
2. Electives

5 SCH
Applied Music 513-514 (1, 1)
Music 644 (1)
Music 645 (3)
TOTAL
30 SCH

## COURSE DESCRIPTIONS

MUSAP 511-514; 521-524 APPLIED VOICE $(1,2)$ Graduate courses designed to teach the advanced principles of tone production, breath control and vocal articulation.

MUSAP 511-514; 521-524 APPLIED INSTRUMENTS $(1,2)$ Graduate courses in solo and technical mastery of orchestral instruments.

MUSAP 511-514; 521-524 APPLIED ORGAN $(1,2)$ Graduate courses in advanced study of solo organ repertoire.
MUSAP 511-514; 521-524 APPLIED PIANO $(1,2)$ Graduate courses in advanced study of piano techniques and repertoire.

MUSIC 600 GRADUATE RECITAL (0) Solo Recital required of all music graduate students on their respective major instrument.

MUSIC 640 INDEPENDENT STUDY IN ORCHESTRATION \& COMPOSITION (1) Directed study of original composition or the orchestration of a selected work demonstrating knowledge of compositional techniques with consultation of major advisor.

MUSIC 641 INDEPENDENT STUDY IN ORCHESTRATION \& COMPOSITION (3) An independent analysis project as determined by consent of the instructor. Music 647 may be substituted.

MUSIC 642 INDEPENDENT STUDY IN MUSICOLOGY (1) Directed study of musical styles and/or composers within an historical and cultural context or period. (Prerequisite: Instructor's consent)

MUSIC 643 INDEPENDENT STUDY IN MUSICOLOGY (3) An independent project focusing on the research of musical styles/composers presented in lecture. (Prerequisite: Instructor's consent)

MUSIC 644 INDEPENDENT STUDY IN MUSIC EDUCATION (3) Reading, research and creative projects in an area chosen by the student under the supervision and approval of a faculty member highly skilled in the chosen subject matter. Research paper and/or performance required. Not to exceed six semester hours in graduate degree program.

MUSIC 645 INDEPENDENT STUDY IN MUSIC EDUCATION (3) Directed study of research in music education with lecture demonstration. (Prerequisite: Instructor's consent)

MUSIC 646-647 INDEPENDENT STUDY IN PERFORMANCE PRACTICE $(\mathbf{1 , 3})$ Directed research on the technical and interpretive aspects of a specific composition including the performance practice of a composer or instrument in lecture demonstration. (Prerequisite: instructor's consent)

## History

## Master of Arts in History

The Department offers a master's program in history for students seeking to expand their knowledge of history and to begin to develop the analytical and critical skills of a professional historian.


#### Abstract

ADMISSION CRITERIA In addition to the general requirements for admission to the Graduate School (see the General Information section of this catalog), applicants for admission to the M.A. program in History are expected to have completed an undergraduate major or minor in history or a related discipline. Students who do not meet this criteria may be required to enroll in undergraduate history courses before they are fully admitted to the program. All application materials should be submitted to the Texas Southern University Graduate School. The Department Chair or the Graduate Student Advisor will review all applications and make recommendations to the Dean of the Graduate School.


## DEGREE REQUIREMENTS

1. Degree requirements for a M.A. in history:
A. Thesis option: Complete thirty (30) semester hours of graduate work (fifteen (15) semester credit hours of required courses; fifteen (15) semester credit hours of electives) with a grade point average of at least 3.0; demonstrate competency in functional English; pass a comprehensive examination over course work in History; write and defend a satisfactory thesis in U.S. history.
B. Non-Thesis Option: Complete thirty-six (36) semester credit hours of graduate work(fifteen (15) semester credit hours of required courses; twenty-one (21) semester credit hours of electives) with a grade point average of at least 3.0; demonstrate competency in functional English; pass a comprehensive exam over course work in history.

## CURRICULUM SUMMARY <br> Allocation of Thirty Semester Hours Thesis Option

1. Core Courses (Required) HIST 632 (3) HIST 734 (3) $\begin{array}{ll}\text { HIST } 631 \text { (3) } & \text { HIST } 632(3) \\ \text { HIST 750 (3) } & \text { HIST 755 (3) }\end{array}$
$\qquad$

## Non-Thesis Option



HIST 734 (3)

## COURSE DESCRIPTIONS

Advanced Undergraduate/Graduate
HIST 420 CAPSTONE SEMINAR (3) A directed readings course. Variable credit. May be repeated. Open to senior History majors and minors, required for majors. Students will undertake an independent research project leading to the production of an article length senior thesis.

HIST 430 TOPICS IN HISTORY (3) Intensive study with reading and discussion of special topics in U.S., African American, and World History. Special attention will be focused on selected national and international topics. Three hours of lecture per week.

HIST 434 TOPICS IN LATIN AMERICA HISTORY (3) A general study of the origins of the peoples, cultures, and politics of Hispanic America with special emphasis on the problems of colonialism, imperialism, and hemispheric solidarity.

HIST 438 HISTORY OF THE SOUTH (3) An examination of the South, include Houston, during and after slavery with particular emphasis on race relations as well as cultural and economic development.

HIST 439 THE UNITED STATES SINCE 1945 (3) An examination of the rapid social and political changes experienced by the United States since World War 11, with particular attention given to Americans involvement in foreign affairs.

HIST 447 MODERN AFRICAN AMERICAN HISTORY (3) An examination of the background and events of the struggle for legal, political, and economic equality by African Americans up to the present day.

HIST 451 MEXICAN AMERICAN HISTORY (3) An examination of the history of the Mexican-American people with special emphasis on Texas and the Southwest.

HIST 471 THE AMERICAN REVOLUTION (3) All examination of the explosive political, social, and cultural developments between 1763 and 1789 , which culminated in a war for independence and the adoption of the U.S. Constitution.

HIST 478 SLAVERY (3) An examination of the political, social, economic, and cultural impact of slavery on the Western world.

HIST 479 URBAN HISTORY (3) An examination of the process of urbanization in American history with special emphasis on the role of ethnic minorities, Blacks, and Browns in an urban nation.

HIST 481 TOPICS IN AFRICAN HISTORY (3) A series of specialized course in African history. Topics include ancient African kingdoms, the history of South Africa, and the Atlantic slave trade. May be repeated as topics vary.

## Graduate

HIST 531 READINGS IN HISTORY AND GOVERNMENT (3) Directed readings in selected areas of U.S. History to introduce the student to the themes and concepts of U. S. History. (This course may be taken more than once, but no more than three (3) times.)

HIST 532 READINGS IN AFRO-AMERICAN HISTORY (3) Directed readings in selected areas of African American History to introduce the student to the themes and concepts of African American History. (This course may be taken more than once, but no more than three (3) times.)

HIST 581 READINGS IN AFRICAN HISTORY (3) Directed readings in selected areas of African History to introduce the student to the themes and concepts of African History. (This course may be taken more than once, but no more than three (3) times.)

HIST 582 SPECIAL PROBLEMS IN AFRICAN HISTORY (3) Intensive study with reading and discussion of special problems in African History. (This course may be taken more than once, but no more than three (3) times.

HIST 630 SPECIAL PROBLEMS IN HISTORY (3) Intensive study with readings and discussion of specified problems in U.S. and/or African American History. (This course may be taken more than once but no more than three (3) times.)

HIST 631 HISTORIOGRAPHY I (3) A survey of Western historical methods and thought from the Greeks through the 19th Century.

HIST 632 HISTORIOGRAPHY II (3) A survey of the philosophy and methods of 20th Century historical thought and non-western historical thought.

HIST 635 THE CIVIL WAR AND RECONSTRUCTION (3) An analysis of the social and political crisis of the Civil War and the social and political readjustments of the period of Reconstruction.

HIST 640 UNITED STATES SINCE 1900 (3) An examination of the history of the United States in the twentieth century, with particular emphasis on the economic and social problems of contemporary America.

HIST 734 SEMINAR IN AMERICAN HISTORY (3) Readings, discussion, and research in selected topics in American history.

HIST 736 SEMINAR IN AFRO-AMERICAN HISTORY (3) Readings, discussion, and research in selected topics in Afro-American history.

HIST 750 HISTORICAL RESEARCH (3) A survey of non-quantitative historical research methodology.
HIST 755 QUANTITATIVE METHODS IN HISTORY An introduction to quantitative research techniques appropriate to historical research methodology.

## Graduate Courses in Economics

The Department of History, Geography and Economics does not offer a program leading to a M.A. in Economics. However, the Department does offer graduate courses in Economics in support of various graduate programs offered through the Jesse H. Jones School of Business.

## COURSE DESCRIPTIONS

ECON 620 ECONOMIC THEORY AND POLICY (3) An accelerated one semester principles course emphasizing micro- and macroeconomic theories problems and policies.

ECON 621 MANAGERIAL ECONOMICS (3) A quantitative approach to the application of economic theory to managerial decision making with emphasis on optimization uncertainty demand theory and cost analysis. The political-social-legal environment of business is also studied. (Prerequisites: ECON 620 and MGMT 240)

ECON 639 ANALYSIS OF BUSINESS CONDITIONS (3) Aggregate economic analysis with emphasis on national income accounting and income determination; monetary fiscal and other public policies as they impact the economy. (Prerequisites: ECON 620 and MGMT 240)

## Human Services \& Consumer Sciences

The Human Services and Consumer Sciences (HSCS) curriculum is designed to connect the University's mission as a special purpose institution of higher education for urban programming with specialized training and experiences related to urban issues in homes, school, and communities. Recognizing the influence exerted by social, economic, political, and religious forces in contemporary society, the program provides specific opportunities for students to:

1. Broaden knowledge concerning:
a. Changing family structure and function;
b. Behavioral aspects of the family;
c. Interrelationships within families and other societal subsystems;
d. Interface between teaching and the learning process;
e. Nutrition and its relationship to the health and well-being of societal subsystems.
2. Increase competency in organizing and utilizing knowledge related to man's effective interaction with the environment.
3. Become involved in the research process and recognize the role of research in enabling families to meet those needs essential to social and economic progress.
4. Develop skills in research that will enable them to pursue advanced graduate studies.


#### Abstract

ADMISSION REQUIREMENTS Admission to any of the graduate programs in the department is dependent on completion of undergraduate courses that provide the necessary background for success in the graduate program. Students entering the graduate program during the Fall semester must register for HSCS 510 and English 501 or a specialization course. Those entering during the Spring semester are advised to enroll in English 501 and a specialization course, and enroll in HSCS 510 during the following Fall semester.


## The Master's Degree

An individual program of study may be designed for the student in collaboration with his or her major professor and/or committee. The program provides for a concentration in either Child and Family Development, Foods and Nutrition Family Studies or Human Services and Consumer Sciences.

## DEGREE REQUIREMENTS

The Department of Human Services and Consumer Sciences offers two programs leading to the Master's degree:

1. Plan A Master of Science degree - a minimum of thirty ( 30 ) semester credit hours and an acceptable thesis.
2. Plan B Master of Science - a minimum of thirty-six (36) semester credit hours and an acceptable research project. Major areas of specialization include: Child and Family Development, Foods and Nutrition, Human Services and Consumer Sciences.

Students who select either Plan A and B must meet the general requirements for all graduate students as prescribed in this bulletin. Degree plans must be approved by the Chair of the Department and the program advisor prior to submission to the Graduate School. Additionally, any identified content deficiencies must be removed as advised.

## PLAN A <br> Master of Science (Thesis)

This plan is designed to provide instruction to prospective and in-service teachers, practitioners, professional career students and others who wish to supplement their undergraduate education and expand their research capabilities in Human Services and Consumer Sciences and the health-related sciences through additional study at the graduate level.

General Requirements: A minimum of thirty ( 30 ) semester credit hours and an acceptable thesis.

## Allocation of Thirty Semester Credit Hours Course Requirements

1. Core Course (Required) ...........................................................................................

HSCS 510 (3) HSCS 512 (3) HSCS 534 (3)
HSCS 760 (3) HSCS 762 (3)
2. Major Course (Required or as advised) 12 SCH
Specialization 600 level Specialization 500 level
Specialization 600 level Specialization 500 level
A. At least twelve semester credit hours in one of the following fields:

- Child and Family Development,
- Human Services and Consumer Sciences, - Foods and Nutrition.
B. Human Services and Consumer Sciences majors must complete at least six semester credit hours in each of two fields.
C. One 400* level course may be substituted for three semester credit hours of graduate credit in this block.
$\qquad$

3. Electives or Cognates. 3 SCH

TOTAL ..................................................................... 30 SCH

## PLAN B

## Master of Science (Non-Thesis)

This plan is designed to provide instructional enhancement to meet the needs of prospective and in-service teachers, practitioners, professionals, career students and others who wish to supplement their undergraduate education in human services and consumer sciences and the health related sciences. It further provides a non-thesis option.

## Allocation of Thirty-Six Semester Credit Hours <br> Course Requirements

General Requirements: Minimum thirty-six (36) semester credit hours and professional paper or research project.

1. Core Courses (Required) ........................................................................ 15 SCH

HSCS 510 (3) HSCS 511 (3) HSCS 512
HSCS 534 (3) HSCS 760
$\begin{array}{ll}\text { 2. Major Course (Required or as advised) } & \text {.......................................................... } 15 \text { SCH } \\ \text { Specialization } 600 \text { level } & \text { Specialization } 500 \text { level } \\ \text { Specialization } 600 \text { level } & \text { Specialization } 500 \text { level } \\ \text { Specialization } 500 \text { level } & \end{array}$
A. At least fifteen semester credit hours in one of the following fields:

Child and Family Development
Foods and Nutrition
Human Services and Consumer Sciences
B. Human Services and Consumer Sciences majors must complete at least six semester credit hours in each of two fields.
C. One $400^{*}$ course may be substituted for three semester credit hours of graduate credit in this block.
3. Electives or Cognates..................................................................................................

TOTAL ................................................... 36 SCH

## COURSE DESCRIPTIONS

CFDEV 435* CHILD NUTRITION (3) Principles of nutrition affecting growth and development from conception to early childhood. Emphasis on menu planning preparations portion control and nutritional requirements in early childhood programs. (Prerequisite: FN 233 or instructor's consent)

CFDEV 436* PARENTING (3) Theoretical procedures and techniques for use in guiding the behavior and development of the child. Application of current research and parenting models. (Prerequisite: CFDEV 234, 235 or instructor's consent)

## Graduate

CFDEV 531 GUIDANCE OF CHILDREN (3) Advanced principles and theories of child development and guidance with emphasis on implications for application of appropriate management techniques for enhancing growth and competence in the young child. Prerequisite: Completion of Child Development deficiencies or background in Early Childhood Education, Elementary Education or a related area.

CFDEV 532 LANGUAGE COGNITION \& DEVELOPMENT IN EARLY CHILDHOOD (3) Study of language acquisition theories with implications for positive language development during the early years.

CFDEV 533 PARENTAL INFLUENCE \& INVOLVEMENT IN CHILD DEVELOPMENT (3) Current issues in parenting; emphasis on influence of parental involvement and effects of positive parent/child relationships on development in early years.

CFDEV 536 GRADUATE PRACTICUM (3) Opportunities for field experience in early childhood. Individual placements depending on focus and needs of the student. One lecture hour per week and ten (10) practicum hours per week.

CFDEV 578 CURRICULUM DEVELOPMENT IN EARLY CHILDHOOD (3) Examination of the process of curriculum development in quality early childhood settings; emphasis on development modification and evaluation of existing and proposed programs for maximizing instructional effectiveness.

CFDEV 631 NURSERY SCHOOL \& KINDERGARTEN ADMINISTRATION (3) Consideration of administrative problems such as physical plant equipment, records standards and personnel in relation to the objectives of the nursery school and kindergarten.

CFDEV 635 INFANT DEVELOPMENT \& BEHAVIOR (3) Principles of physical, emotional and cognitive development with emphasis on the practical application of theoretical philosophies and research.

CFDEV 671 BEHAVIOR PROBLEMS OF YOUNG CHILDREN (3) The study of emerging and developing deviate and normal behavior patterns of children from infancy through the middle years, with emphasis on behavioral management techniques appropriate for modifying behaviors.

## Clothing \& Textiles

CT 432* EXPERIMENTAL CLOTHING (3) An investigation and evaluation of innovative material procedures and techniques applied in Clothing and Textiles. Development of prototype designs for specific functions. (Prerequisite(s): CT 141, CT 235 , CT 337 or 435)

## Foods and Nutrition <br> Advanced Undergraduate

FN 432* NUTRITION IN DISEASE I (3) Dietary requirements in pathological and/or therapeutic conditions. Modifications of normal diets and the principles of human nutrition in health and disease; the latest development in the dietary treatment of disease; diet instruction; and charting. Two lecture and two practicum hours a week. (Prerequisite (s): F\&N 333 and 337)

FN 433* NUTRITION IN DISEASE II (3) (Continuation of FN 432 NUTRITION IN DISEASE 1) Two lecture and two practicum hours a week. (Prerequisites: FN 333 and FN 337)

FN 434* EXPERIMENTAL FOODS (3) Principles of food science and techniques of food preparation. Physical and chemical properties of basic food materials and processes of preparation for consumption; and the application of the scientific methods to designing, implementing evaluating and reporting research results. Research paper required. One lecture and four laboratory hours a week. (Prerequisites: Senior standing and BIOL 347)

FN 436* COMMUNITY NUTRITION (3) Epidemiological approach to health and illness. Assessments; use of computer applications; fundamentals of nutritional care delivery systems and services with special references to nutritional problems of indigent populations; interviewing and counseling of individuals and groups. Two lecture and two practicum hours a week. (Prerequisite: Dietetic senior standing)

FN 441* ORGANIZATION MANAGEMENT OF FOOD SERVICE SYSTEMS (4) Application of organization and management principles, and techniques of financial management in food service systems; equipment and supply budget; food, labor and operating costs; forecasting; computer applications; quality assurance; receiving and storage. Two lecture and four practicum hours a week. (Prerequisite: FN 341 )

FN 442 EQUIPMENT SELECTION MAINTENANCE \& LAYOUT (4) Recognizing analyzing and solving problems relating to equipment and space requirements for food service system; experience in equipment selection specification requirements for purchasing, proper use and maintenance, layout designs, and cost analysis. Two lecture, two laboratory, and two practicum hours a week. (Prerequisite: FN 341 )

## Graduate

FN 531 FOOD PROCESSING (3) Principles and methods of food preservation; changes occurring during processing and storage; control of changes in food due to enzyme 5 microorganisms and chemical reactions. Research paper required. One lecture and four laboratory hours per week. Fee: $\$ 4.00$.

FN 537 TEACHING NUTRITION \& HEALTH IN PUBLIC SCHOOLS (3) The relation of nutrition to health and its implication to the education of youth. Methods of planning and correlating nutrition and health with other subjects in public schools. Recommended for education majors. Research paper required.

FN 539 HUMAN NUTRITION DURING ADULTHOOD (3) Advanced study of normal and therapeutic nutrition during early, middle, and late adulthood. Nutritional assessments, requirements, and factors influencing the quality of diet. Research paper required.

FN 543 MANAGEMENT PROBLEMS IN FOOD SERVICE SYSTEMS (4) Advanced study of institutional administration of food service systems: including organizational structures, personnel, management, administration, budgetary control, problems, responsibilities, policies and procedures . Two lecture and four practicum hours per week. Fee: $\$ 4.00$.

FN 632 DEMONSTRATION TECHNIQUES (3) Techniques and procedures in demonstration preparation of foods for business and social purposes extension and teaching. One lecture and four laboratory hours per week. Fee: $\$ 4.00$.

FN 634 SEMINAR IN FOODS \& NUTRITION (3) Individual reports and discussions of proposed research in foods and nutrition. Oral presentation at scheduled seminars required. Two lecture and two seminar hours per week. Research paper and practicum required. (Prerequisite: HSCS 511; Co-requisite: HSCS 760; Formerly FN 534)

FN 641 INSTITUTIONAL FOOD PRODUCTION AND SERVICES (4) Advanced study of food purchasing production and service in health care and related facilities; specification writing, recipe development analysis of food costs computer applications in food service systems. Three lecture and two practicum hours per week.

## Human Services and Consumer Sciences

HSCS 434* INDIVIDUAL \& FAMILY FINANCIAL MANAGEMENT (3) Application of financial planning and budgeting strategies for working with individuals and families during various stages of the life cycle. (Prerequisite: Junior standing)

HSCS 435* HEALTH \& SOCIAL ISSUES AND THE FAMILY (3) Theories and intervention strategies dealing with gender issues, family crisis, terminal illness, aging, drugs, death and dying, lifestyles, marriage preparation, separation and divorce, blending families and other family issues.

HSCS 437* STATISTICS (3) Survey of descriptive and inferential statistical techniques. Emphasis on understanding and interpreting statistical concepts used in research. (Prerequisite: HSCS 233 and instructor's consent)

HSCS 438* FAMILY \& CONSUMER ECONOMICS (3) Study of the income and distribution patterns of individuals and families in an effort to achieve desired goals; develop concepts skills through which sound decisions are made. (Prerequisite: HSCS 233 or instructor's consent)

HSCS 439* FAMILY \& COMMUNITY SERVICES - FIELD EXPERIENCE (3) The utilization of consumer economics perspectives in family service agencies within government public and private sectors. Practicum with a family service component. Four laboratory hours and one lecture hour per week. (Prerequisite: HSCS 233 or instructor's consent)

HSCS 510 INTRODUCTION TO GRADUATE STUDIES IN HUMAN SERVICES \& CONSUMER SCIENCES (3)
Orientation, history and philosophy of Human Services and Consumer Sciences. Analysis of current programs and future direction in the field. Examination of research integrative framework (Prerequisite: English 501 or English Proficiency Examination)

HSCS 511 INDEPENDENT STUDY (3) Individualized work on a project in area of specialty under supervision. Major Advisor and/or instructor approval required. (Prerequisites: Eng. 50 1, HSCS 510, and HSCS 534)

HSCS 512 RESEARCH SEMINAR (3) Presentation of research papers and/or projects. (Prerequisites: HSCS 511 and 534)

HSCS 534 READINGS IN AREAS OF SPECIALIZATION IN HUMAN SERVICES \& CONSUMER SCIENCES (3) Readings in and discussion of selected studies and recent developments Human Services and Consumer Sciences. (Co-requisite: HSCS 510)

HSCS 536 SPECIAL TOPICS IN HUMAN SERVICES \& CONSUMER SCIENCES (3) Selected topics in an identified area of study in the Department of Human Services and Consumer Science. (Prerequisite: instructor's consent)

HSCS 631 ADMINISTRATION \& SUPERVISION OF HUMAN SERVICES \& CONSUMER SCIENCES (3) Qualifications and responsibilities of supervisors and administrators. Criteria for evaluating supervision and administration in Human Services and Consumer Sciences.

HSCS 634 SEMINAR IN HUMAN SERVICES \& CONSUMER SCIENCES (3) Individual reports and discussions of proposed research and/or specific topic related to current societal issues in Human Services and Consumer Sciences. Oral presentation of scheduled seminars required. Two lecture hours and two practicum hours per week. (Prerequisite: HSCS 511; Co-requisite: HSCS 760)

HSCS 635 CURRENT TRENDS IN HUMAN SERVICE \& CONSUMER SCIENCES (3) Study of recent advances and current research related to consumer behavior as it relates to changing societal needs, and psychology, with particular emphasis on programs of Human Services and Consumer Sciences at various educational levels.

HSCS 760 ADVANCED RESEARCH (3) Survey of research theories, methods and processes involved in designing research studies.

HSCS 762 THESIS WRITING (3) Directed individual study on Human Services and Consumer Sciences thesis topic. (Prerequisite: Approval of graduate advisor required)

## Psychology

## Master of Arts in Psychology

As a special-purpose institution of higher education for urban programming, Texas Southern University embraces the concept of liberal education, particularly as it relates to the life-styles and societal ambitions of ethnic minorities in urban environments. Within this context, the major purposes of the Department of Psychology are to facilitate the acquisition of a sense of personal freedom and competence through the teaching and investigation of the processes of development, maturation, behavior, psychological health, and the acquisition of a unifying philosophy of life. The purpose of the area of Psychology has been translated into specific objectives as follows:

1. To develop in students a better understanding of themselves, their work, and their fellow beings through a study of the factors contributing to personal growth and effective living;
2. To establish the tolerance which comes from understanding the principles of human behavior and individual differences.
3. To develop in students the competencies needed for the practice of school psychology.
4. To develop in students the competencies needed to provide psychological services in a variety of urban settings.
5. To provide a foundation for doctoral study and professional development

The Department of Psychology and Philosophy provides academic studies leading to the Master of Arts (MA) degree with two options - Clinical-Community Psychology and School Psychology.

## THE CLINICAL - COMMUNITY PSYCHOLOGY PROGRAM

The Master of Arts program in Clinical-Community Psychology is designed for the development of students who wish to study the empirical and theoretical foundations of psychology with application to a variety of urban settings broadly conceived to include community, clinical, and educational environments. Through a combination of coursework and field experiences, the student is prepared to qualify for positions in mental health and social services agencies, school settings, junior and community colleges, or similar functions in business and industry. Alternately, the student may pursue a plan designed to develop research competencies which can be applied toward the investigation of problems of a psychological nature, especially those related to the improvement of life in the urban community.

The Clinical-Community Psychology option is a program of theoretical and applied psychology, which requires 48 semester credit hours in addition to any undergraduate prerequisites needed. The first of the two years is devoted mainly to preparation in basic foundation areas and some laboratory work in assessment methods and in psychological counseling techniques. During the second year, the program includes a combination of academic work, and supervised practice (minimum of 450 clock hours) in an approved agency or institution. Upon completion of the program, students are eligible to apply for licensure as a Psychological Licensed Associate from the Texas State Board of Examiners of Psychologist or from Boards with similar requirements in other states.

## THE SCHOOL PSYCHOLOGY PROGRAM

The School Psychology program is designed for the development of students who wish to study the theory and practice of school psychology. School psychologists promote educationally and psychologically healthy environments for children and youth.

This program requires 60 semester credit hours in addition to any undergraduate prerequisites needed. The first year of the two year program is devoted to preparation in the basic foundations of psychology, including assessment and diagnosis of learning, emotional and behavioral problems. The second year and summer courses include training in counseling, consultation, intervention strategies, and supervised practice ( 300 clock hours) in an approved agency or institution. Upon completion of this program, students are eligible to apply for licensure as a Licensed Specialist in School Psychology from the Texas State Board of Examiners of Psychologist.

## ADMISSION REQUIREMENTS

Admission to the graduate programs in the Department of Psychology is competitive in that faculty within the Department view admission as a major evaluative element in a student's academic career. A student may be admitted to the graduate program if, in the judgement of the faculty, there is evidence of strong qualifications that indicate likely success in graduate studies. It should be noted that not all qualified students can be admitted. Given our earnest commitment to students, we take seriously our responsibility when admitting an applicant. We consider every piece of information carefully. Students are selected on the basis of their record of academic achievement, GRE scores, letters of recommendation, and research interests.

## UNCONDITIONAL ADMISSION

1. Undergraduate grade point average of at least 2.5 or an average of 3.0 on the last 60 hours.
2. Applicants must present a Graduate Record Examination (GRE) scores (combined verbal and quantitative) which are considered along with the applicant's undergraduate grade point average. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
3. The applicant's performance during a personal interview.
4. Present a minimum of 12 semester credit hours of undergraduate psychology, including a course in Statistics and in Social Psychology.
5. Present a score of at least 500 on the TOEFL, if the applicant is a foreign student.
6. The applicant may submit letters of recommendation and or personal statements to the Graduate Admissions Office as a part of their admissions application.
7. Some applicants may be requested to visit with a member of the Department's Admissions Committee if such a visit appears to be useful in completing the assessment of the applicant for graduate study in psychology.

## CONDITIONAL ADMISSION

The Department of Psychology may grant conditional admission status to applicants who (1) graduated from an unaccredited college or university, (2) have scholarship or GRE score deficiencies, and (3) have an unsatisfactory undergraduate sequence of courses or lack the graduate prerequisites required for master's level courses in psychology. Students admitted on a conditional status will be required to meet unconditional admission criteria by the end of 12 semester hours of course work. Failure to do so may result in the student being dropped from the program.

## DEGREE REQUIREMENTS

In general, the departmental requirements for the Master of Arts degree in Psychology are as follows:

1. Present a score of at least 450 on the Psychology Area Test of the Graduate Record Examination. This test is used for the Departmental Qualifying Examination, and is required of all psychology majors.
2. Demonstrate proficiency in English by passing an examination in English or by completing the course, English 501. A GRE verbal score of 550 or more may be presented to satisfy this requirement.
3. Secure departmental recommendation to candidacy status for the M.A. degree in Psychology.
4. Take and pass the Department Comprehensive Examination in Psychology. This Examination is offered once during the Fall semester and once during the Spring semester. Failure on one or both parts of the Examination may be resolved by repeating the Examination at its next administration. A third attempt to pass the Examination will be permitted only after consultation and or remediation.
5. Complete with a GPA of not less than 3.00 , the specified courses for the Clinical-Community Psychology program, or the requirements for the School Psychology program.

## CANDIDACY

Advancement to candidacy as a formal candidate for the master's degree requires prior completion of the following steps:

1. Completion in classified graduate status of four or more courses at the 500 level (minimum of 12 hours) within the Department of Psychology.
2. Present a GRE Psychology Score of at least 450 for the Qualifying Examination.
3. Maintenance of a 3.0 - grade point average or better in all departmental coursework and in overall coursework.
4. Acceptance by the department of a proposed formal degree plan.
5. Recommendation by the faculty of the department for acceptance as a candidate.

## CURRICULUM SUMMARY <br> Master of Arts <br> Clinical Community Psychology <br> Total Credits Required: 48

1. Required Courses $\qquad$ PSY 531 (3)* PSY 532 (3) PSY 533 (3) PSY 534 (3) PSY 538 (3) PSY 539 (3) PSY 631 (3) PSY 637 (3) PSY 730 (3) PSY 735 (3) PSY 736 (3) PSY 737 (3) PSY 739 (3)
2. Elective Courses

PSY 536 (3) PSY 537 (3)
PSY 535 (3)
PSY 634 (3)
PSY 630 (3)
PSY 633 (3)
PSY 733 (3)
PSY 635 (3)
PSY 636 (3)
PSY 733 (3)
PSY 833 (3)

- (N) represents the number of course credits

CURRICULUM SUMMARY<br>Master of Arts Degree<br>School Psychology<br>Total Credits Required: 60

| Required Courses |  |  |
| :---: | :---: | :---: |
| PSY 531 (3)* | PSY 532 (3) | PSY 533 (3) |
| PSY 534 (3) | PSY 536 (3) | PSY 539 (3) |
| PSY 631 (3) | PSY 633 (3) | PSY 635 (3) |
| PSY 623 (3) | SPED 556 (3) | PSY 637 (3) |
| PSY 730 (3) | COUN 733 (3) | PSY 733 (3) |
| PSY 735 (3) | PSY 736 | PSY 737 (3) |
| EDAS 800 (3) | PSY 834 (3) |  |

* (N) represents the number of course credits.


## COURSE DESCRIPTIONS

PSY 531 Theory of Psychological Testing (3) Introduction to the assessment process, theories of intelligence, testing minorities, and a consideration of the issues involved in the administration and use of individual tests of intelligence. Instruction in test administration including the Stanford Binet, K-ABC and the Woodcock Johnson.

PSY 532 Individual Testing (3) The administration, scoring, interpretation, and the reporting of the results of the major individual test of intelligence including the Wechsler Scales, and selected individual achievement tests. (Prerequisite: PSY 531)

PSY 533 Survey of Psychological Statistics (3) Designed for students who need practical competence in statistics. The techniques considered include reliability, validity, correlation, $t$-test, analysis of variance, non-parametric methods and experimental designs.
(Prerequisite: Three semester hours of elementary statistics)
PSY 534 Learning Motivation (3) Study of motivation and principles of learning underlying behavior of organisms.
PSY 535 History and Systems of Psychology (3) Designed to present modern psychological problems in the light of their historical development.

PSY 536 Principles of Treating the Problem Child (3) For prospective teachers, counselors, and clinicians. A survey of treatment procedures and resources, behavior and personality problems. The flexible use of school environment and community resources, methods of altering attitudes of parent and child, and direct treatment approaches. (Prerequisite: Twelve hours of advanced Psychology)

PSY 537 Group Testing (3) The administration, scoring, and interpretation of group tests. A survey of test analysis. Selection factors are stressed along with statistical data in test evaluation. Research reports required. (Prerequisite: Admission to Graduate program and PSY 531)

PSY 538 Theory of Group Practice and Treatment (3) Theories and concepts under-lying the process of group information, maintenance and productivity in the resolution of psychological problems. (Prerequisites: PSY 532 and PSY 534)

PSY 539 Developmental Psychology (3) Study of genesis and transformation of psychological functions with particular reference to acquisition of motor skills, language habits, emotional attitudes, personal values, and group identification.

PSY 630 Mental Health (3) Application of mental health principles to clients in community and school environments, both in regards to the development and to maintenance of good mental health.

PSY 631 Research Designs (3) (Prerequisite: Three hours in Statistics)

PSY 634 Theories of Personality (3) An examination of major schools of personality thought with consideration of potential application in school, community, and mental health agencies.

PSY 635 Psychological Counseling, Interviewing and Report Writing (3) The principles involved in assisting others in their adjustment to school, family, community or other problems. Prerequisite: Twelve hours of graduate work in Psychology and consent of the instructor.

PSY 637 Personality Assessment (3) Major concepts and techniques in the development and construction of personality assessment instruments including the administration and interpretation of structured and semi-structured instrument. (Prerequisite: PSY 532)

PSY 730 Ethical and Legal Issues in Mental Health (3) The study of ethical and legal issues as they relate to the mental health profession.

PSY 731 Role and Function of the School Psychologist (3) The development of the school psychologist as a member of the school staff. Includes an examination of the research on the role, function legal and ethical responsibilities of the school psychologist as well as the relationship to staff, administrative and teaching personnel.

PSY 733 Physiological Psychology (3) A systematic study of the interrelationship between physiology and Physiological basis of mental functions and the influences of various Psychological phenomena on the system of the body. (Prerequisite: Consent of the instructor)

PSY 735 Practicum (3) The student will spend at least 150 clock hours working in an approved agency or institution under the clinical supervision of a staff member of the agency or institution who is a certified/licensed psychologist. Prerequisite: Completion of at least 30 hours of approved graduate work and consent of the cooperating agency.

PSY 736 Practicum (3) The second of three practicums where the student must spend at least 150 clock hours working in an approved agency or institution under the supervision of a staff member of the agency or institution who is a certified/ licensed psychologist. Prerequisite: Completion of at least 30 hours of approved graduate work and consent of the cooperating agency.

PSY 737 Practicum (3) The student must spend at least 150 clock hours working in an approved agency or institution under the supervision of a staff member of the agency or institution who is a certified/licensed psychologist. (Prerequisite: Completion of at least 30 hours of approved graduate work and consent of the cooperating agency)

PSY 739 Psychopathology (3) A broad introduction to psychopathology which systematically exposes the major theoretical therapeutic approaches to abnormal or maladaptive Behavior. The classifications system of the DSM-IV. (Prerequisite: Nine hours of graduate work)

## PSY 832 Master's Research and Thesis I

## PSY 833 Master's Research and Thesis II

## PSY 834 Consultation in School Psychology

## Public Affairs

The Department of Public Affairs currently offers two graduate degrees, the Master of City Planning (MCP) and Master of Public Administration (MPA). In offering these degrees, the Department seeks to achieve the following objectives:

1. To teach students the importance of planning and management as major instruments of improving and developing solutions to problems of cities and metropolitan regions.
2. To develop in its students the skills and knowledge essential for careers in public sector and nonprofit organizations.
3. To develop and train students with analytic skills, managerial capabilities, and sensitivities to questions of equity and social justice.
4. To make students wise consumers of research and instill in them the knowledge and skills required for continuing their professional career development.

## Master of Public Administration

The MPA Program has as its purpose the preparation of professionals for immediate upward mobility in professional careers in public sectors or for graduate study where the nature of the profession requires the master's degree as the entry criterion. Its greatest single asset lies in its potential to alleviate the shortage of professionally educated persons, especially those from minority groups, in local, state, national and international public service.

The program is designed to prepare professionals to resolve the increasingly complex problems of managing urban growth. It is intended to respond to the increasing importance of planning and management as major instruments in improving and developing solutions to problems of cities and metropolitan regions. The Program seeks to give students a balance inventory of conceptual, quantitative and professional skills. To this end, the Program's curricular philosophy is to:

1. Educate students on analytical approaches to decision-making in the managerial sciences
2. provide students with problem solving skills and analytical competencies that are relevant to management positions
3. emphasize a knowledge of the workings of governmental and private institutions
4. develop the student's ability to make use of academic research
5. provide a foundation in computer and information technology
6. sharpen writing and oral communication skills
7. emphasize knowledge of basic management processes and techniques

ADMISSION CRITERIA
We are seeking highly motivated, high-achieving oriented students who have a strong interest in pursuing a public service career. Prospective students must first apply for admission to the Graduate School (see the General Information Section of this bulletin). Applicants are then referred to the department for acceptance.

In addition to meeting the general requirements for admission to the Graduate School, applicants for admission to graduate standing in City Planning or Public Administration must submit:

1. The graduate application form
2. A typed essay of at least 250 words which states career objectives and gives reasons for desiring admission to the program
3. Three letters of recommendation
4. Test scores from the GRE, and
5. Two copies of official transcripts from each college and graduate institution attended.

## DEGREE REQUIREMENTS

## Master of City Planning

The overall requirements for the Master of City Planning are summarized below:

1. Completion of a total of forty-eight (48) credit hours. Of the 48 credit hours, twenty-four (24) credit hours are required core course requirements, twelve (12) credit hours of specialization and electives, six (6) credit hours of internship, and six (6) credit hours of special problems.
2. At the completion of twelve (12) hours of graduate credits, each student will prepare a degree plan in consultation with his or her advisor. This plan of study should be drawn up and submitted for approval to the Graduate School no later than the second semester in residence.
3. Satisfactory performance on the comprehensive examination. The comprehensive examination will be administered on scheduled days during the months of March and October. A student is eligible to take the exam if the student has:
a. earned a 3.0 graduate GPA in city planning courses and overall;
b. completed all core course requirements;
c. no outstanding incomplete grades;
d. filed a degree plan; and
e. successfully met the English proficiency requirement.
4. Fulfillment of general requirements for graduation as outlined by the Graduate School (see the General Information Section of this bulletin).

> CURRICULUM SUMMARY
> Master of City Planning
> Allocation of Forty-Eight Semester Credit Hours Course Requirements

| Required Courses |  |  | 24 SCH |
| :---: | :---: | :---: | :---: |
| PAD 500 (3) | PAD 502 (3) | PAD 503 (3) |  |
| PAD 504 (3) | PLN 510 (3) | PLN 520 (3) |  |
| PLN 530 (3) | PLN 540 (3) |  |  |
| Elective Courses |  |  | . 12 SCH |
| PLN 500 (3) | PLN 540 (3) | PLN 620 (3) |  |
| PLN 621 (3) | PLN 631 (3) | PLN 640 (3) |  |
| PLN 642 (3) |  |  |  |
| Integrative Courses... |  |  | . 12 SCH |
| PLN 711 (6) | PLN 720 (6) |  |  |

(N) represents the number of course credits. ${ }^{* *}$ Electives may be taken from courses listed under public administration, transportation management and other related academic areas.

## COURSE DESCRIPTIONS

City Planning - Common Core
PAD 500 PUBLIC ADMINISTRATION THEORY AND PRACTICE (3) General survey of the field of public sector planning and administration. Addresses administrative theory, policy, decision-making, and the concepts and practices of organizational management.

PAD 502 RESEARCH METHODS FOR PUBLIC ADMINISTRATION (3) Concepts and methods employed in administrative research analysis with emphasis on methodological assumptions, problems and issues in research design.

PAD 503 QUANTITATIVE METHODS I (3) Modeling course introducing classical deterministic optimization models. Topics include linear programming, probabilistic, and statistical models.

PAD 504 QUANTITATIVE METHODS II (3) An applied course in regression analysis, hypothesis testing, estimation, time series analysis and forecasting techniques. Statistical packages such as minitaps, SAS, and SPSS will be used. (Prerequisite: PAD 503

PLN 510 PLANNING PRINCIPLES AND PRACTICE I (3) This course introduces planning students to the process of urbanization, history and development of city planning, planning theory, and critical issues in the planning field.

PLN 520 PLANNING PRINCIPLES AND PRACTICE II (3) Identification of urban infrastructure requirements, estimating demand for urban services; anticipating the effect of urbanization an urban services. Methods on urban development are reviewed. (Prerequisite: PLN 510)

PLN 540 URBAN PLANNING AND FISCAL POLICY (3) Provides an insight into the mechanisms of public finance, methods of revenue generation, urban tax base and their impacts on capital budget and planning projects.

PLN 550 SEMINAR IN DESIGN PROCESSES (3) Topics to be covered include: principles of land use and urban design, topographical models, site design, and planning methods.

## Specialization and Elective

PLN 500 INTRODUCTION TO URBAN AND REGIONAL PLANNING (3) General overview on the process of urbanization, history of development of city planning, planning theory and methodology, ethical issues and the legal basis for planning theory.

PLN 530 APPLIED PLANNING WORKSHOP I (3) Emphasis on thematic data sets to model and test interaction between spatially oriented information. Utilizes computer software for modeling techniques, cartographic output and data overlays. (Prerequisites: PAD 502, PAD 503)

PLN 620 URBAN PLANNING AND SOCIAL POLICY (3) Theory and method of social service planning in public or private organizations. Selection criteria or recipients and methods of evaluation of social service delivery systems.

PLN 621 REGIONAL DEVELOPMENT PLANNING (3) Regional methods of analysis and its use in regional planning. Reviews of existing regional development plans in the U.S.

PLN 631 LAND USE AND ENVIRONMENT (3) Overview of the environmental and land use issues from the technical and legal perspective. Hazardous material and their impact on the land use policies.

PLN 640 COMMUNITY DEVELOPMENT AND HOUSING (3) Focuses on residential and economic development and their inter-relationship to problems and public policies associated with the provision of safe, decent and affordable housing.

PLN 642 PLANNING LAW AND ADMINISTRATION (3) An examination of the law of resource use and development, its administration and underlying policies. Particular attention is given to regulatory law.

PLN 710 APPLIED PLANNING WORKSHOP II (3) Formulation of goals, data gathering, problem analysis, selection and testing of alternative policies and preparation of a comprehensive spatial plan for the development of an urban settlement. (Prerequisite: PLN 530)

## Integrative Component

PLN 711 SPECIAL PROBLEMS (6) Application of social science research methods to research questions and problems developed by students under direction of a member of the Department faculty.

PLN 720 INTERNSHIP (6) Direction of approved supervisor and internship coordinator.

## DEGREE REQUIREMENTS

Master of Public Administration
The MPA Program has its purpose the preparation of professionals for immediate upward mobility in professional careers in public sectors or for graduate study where the nature of the profession requires the master's degree as the entry criterion. Its greatest single asset lies in its potential to alleviate the shortage of professionally educated persons, especially those from minority groups, in local, state, national and international public service.

The program is designed to prepare professionals to resolve the increasingly complex problems of managing urban growth. It is intended to respond to the increasing importance of planning and management as major instruments in improving and developing solutions to problems of cities and metropolitan regions. The Program seeks to give students a balanced inventory of conceptual, quantitative and professional skills. To this end, the Program's curricular philosophy is to:

1. educate students on analytical approaches to decision-making in the managerial sciences
2. provide students with problem solving skills and analytical competencies that are relevant to management positions
3. emphasize a knowledge of the workings of governmental and private institutions
4. develop the student's ability to make use of academic research
5. provide a foundation in computer and information technology
6. sharpen writing and oral communication skills
7. emphasize knowledge of basic management processes and techniques


#### Abstract

ADMISSION CRITERIA We are seeking highly motivated, high-achieving oriented students who have a strong interest in pursuing a public service career. Prospective students must first apply for admission to the Graduate School (see the General Information Section of this bulletin). Applicants are then referred to the department for acceptance.


In addition to meeting the general requirements for admission to the Graduate School, applicants for admission to graduate standing in City Planning or Public Administration must submit:

1. The graduate application form
2. A typed essay of at least 250 words which states career objectives and gives reasons for desiring admission to the program
3. Three letters of recommendation
4. Test scores from the GRE
5. Two copies of official transcripts from each college and graduate institution attended

The overall requirements for the Master of Public Administration are summarized below:

1. Completion of a total of forty-eight (48) credit hours. Of the 48 credit hours, twenty-seven (27) credit hours are required core courses. in addition to the core requirements, student are required to take nine ( 9 ) hours in specialization courses and take a one semester full-time internship for six (6) credit hours. The remaining six (6) credit hours may be satisfied by electives or a special problems course.
2. At the completion of twelve (12) hours of graduate credits, each student will prepare a degree plan in consultation with his or her advisor. This plan of study should be drawn up and submitted for approval to the Graduate School no later than the second semester in residence.
3. Satisfactory performance on the comprehensive examination. The comprehensive examination will be administered on scheduled days during the months of March and October. A student is eligible to take the exam if the student has:
(a) earned a 3.0 graduate GPA in public administration courses and a cumulative GPA of 3.0 ;
(b) completed all core course requirements;
(c) no outstanding incompletes;
(d) filed a degree plan; and
(e) successfully met the English proficiency requirement.
4. Fulfillment of general requirements for graduation as outlined by the Graduate School (see the General Information Section of this catalog).

# CURRICULUM SUMMARY <br> Master of Public Administration Allocation of Forty-Eight Semester Credit Hours <br> Course Requirements 

1. Required Courses .................................................................................................. 27 SCH
2. Specialization Courses ........................................................................................... 9 SCH

Elective Courses (6 SCH) **
Integrative Courses (6 SCH)

* N ) represents the number of course credits.
** Electives may be taken from the courses listed under specialization, city planning, business, law, or other related academic areas.


## COURSE DESCRIPTIONS <br> Public Administration - Core Component

PAD 501 LEADERSHIP AND DECISION MAKING (3) Examines various leadership styles and decision making.

PAD 507 ORGANIZATIONAL BEHAVIOR AND THEORY (3) Covers the major issues and theoretical perspectives in organization theory Presents the evaluation of the field of organization theory and examines contemporary research on behavior and structure within organizations.

PAD 508 ADMINISTRATIVE REGULATIONS (3) Discussion of the statutory, regulatory, and adjudicative functions of regulatory agencies and their relationships with legislatures, chief executives, courts, and interest groups. Utilization of case method.

PAD 509 COMPUTER APPLICATIONS IN PUBLIC ADMINISTRATION (3) Focuses on current practices for data gathering and analysis with the use of computers.

PAD 630 PUBLIC FINANCIAL MANAGEMENT (3) An introduction to the essentials for financial management in government agencies. Covers basic concepts of government accounting, auditing, the budget cycle and execution, fund management, and financial statements.

## Specialization Courses

PAD 506 PROGRAM EVALUATION (3) Analysis of alternative designs for evaluating the performance of programs. Emphasis on designing an evaluation study through application principles and problems encountered in evaluation research.

PAD 620 THE POLICY MAKING PROCESS (3) An examination of the process by which policy is formulated and implemented, emphasis on relationships between the political process and policy outcomes in illustrative policy areas.

PAD 621 SOCIAL RESEARCH AND SOCIAL POLICY (3) Implications of social science research for social policy. Experimental and research designs useful for deciding which program features to examine systematically. (Prerequisites: PAD 502 and PAD 503)

PAD 622 SCIENCE, TECHNOLOGY, AND PUBLIC POLICY (3) An examination of the impact of science and technology upon governmental policy in the United States.

PAD 623 PUBLIC POLICY ANALYTICAL METHODS (3) Application of theories and techniques of policy analysis to current public problems. Focus on design and execution of policy research.

PAD 624 ISSUES ON AGING (3) Addresses range of issues, including employment, health care, housing, income security, and social services. Also addresses social security and medicare programs.

PAD 631 GOVERNMENT BUDGETING AND FINANCIAL MANAGEMENT (3) Focuses on the executive budget as a tool for management planning and control. Stresses understanding different budgetary systems, elements of budget review and execution, and resource allocation strategies.

PAD 633 MANAGERIAL FINANCE: ANALYTICAL METHODS (3) Decision making models involving the major components of financial management. Emphasis is placed upon the application of analytical methods to portfolio management. (Prerequisites: PAD 503 and PAD 630)

PAD 640 PUBLIC PERSONNEL ADMINISTRATION: THEORY AND PRACTICE (3) Fundamentals in personnel employment and placement, staff and evaluation, wage and salary administration, employee benefits and service, and labor relations.

PAD 641 HUMAN RESOURCES AND ORGANIZATIONAL PLANNING (3) It involves critical analysis related to personnel and organizational structure and function. Emphasizes research, planning, staffing and budget preparation. (Prerequisite: PAD 640)

PAD 642 LABOR RELATIONS AND COLLECTIVE BARGAINING (3) The rise of labor unions in the public sector. Reviews the collective bargaining process and the legal framework of collective bargaining.

PAD 650 INTERGOVERNMENTAL RELATIONS (3) Examines relationships and cooperative functions in federal, state, and local governmental units. Emphasis on the urban administrator's role in changing patterns of cooperation and coordination.

PAD 651 URBAN ADMINISTRATIVE SYSTEMS (3) An overview of the position of cities, in the American governmental system, highlighting relationships between administrative, political, social, and economic features of urban life.

PAD 652 HUMAN SERVICES ADMINISTRATION (3) A focus on the various approaches to planning, delivery and administration of human services through public, private, and non-profit organizations.

PAD 660 COMPARATIVE PUBLIC ADMINISTRATION IN WESTERN NATIONS (3) A historical survey of the traditions, laws, and political culture that influence the contemporary character of administration in the West.

PAD 661 SELECTED TOPICS IN COMPARATIVE ADMINISTRATION (3) Covers contemporary issues and problems in comparative administration.

PAD 662 COMPARATIVE PUBLIC ADMINISTRATION: DEVELOPING NATIONS (3) The role of the administrative process of political development. An emphasis on bureaucracy and political change in emerging nations.

## Integrative Courses

PAD 700 INTERNSHIP PROGRAM IN PUBLIC ADMINISTRATION (6) A supervised program in regularly scheduled work and independent research in a public or governmental agency under the direction of an agency supervisor, and internship coordinator. (Prerequisite: 24 credit hours)

## Elective Courses

PLN 711 SPECIAL PROBLEMS (6) Designed to demonstrate the ability to use appropriate procedures of scholarly inquiry in public administration.

PAD 705 TOPICAL SEMINAR (3) Selected topics emphasizing contemporary issues in the public sector and public policy.

## Sociology

The Department of Sociology offers one graduate degree, the Master of Arts, with three options - General Sociology, Clinical Sociology, and Urban/Applied Sociology.

In keeping with the urban focus of the University, a program is offered which integrates and conceptualizes theory and methods for the production of sociological knowledge. To this end, the program seeks to achieve the following objectives:

1. To provide a wide range of strategies for learning new roles in urban affairs for social and behavioral scientists;
2. To provide an effective environment for conceptualizing relevant theories to guide research in urban affairs and in the utilization of societal resources;
3. To provide an environment for the study of organization theory and political processes as these influence public policy objectives and goals in the urban setting;
4. To provide opportunities for students to apply sociology, economics, social work and other behavioral science knowledge to improve the human condition;
5. To prepare students for positions in various agencies where social settings require the skills and knowledge of Sociology;
6. To provide professional services to communities and organizations whose objectives promote the general welfare of the society;
7. To prepare students for additional study toward the Ph.D. degree; and
8. To provide individual support in minor areas for doctoral programs.

## ADMISSION CRITERIA

In addition to the general requirements for admission to the graduate school see The General Information Section of this bulletin. Those applicants with Bachelor of Arts or Sciences degrees in Sociology should follow this section for admission. A Bachelor's degree in Social Work or a Bachelor's degree in other academic areas may be accepted after evaluations of completed transcripts are received.

Some applicants will be required to take Sociology 525 before unconditional admission is given to students by both the graduate school and the Sociology Department.

## DEGREE REQUIREMENTS

The minimum requirements for the Master of Arts degree in addition to those discussed above consist of:
A. Thirty-six semester hours of graduate credits and such other credits as the student's graduate advisor and committee may deem appropriate after a review of the student's objectives and the academic record;
B. A residency of at least one semester or one full summer session of full-time continuous enrollment, and approval for graduation from the Graduate School.

Admission to Candidacy for a Degree: The comprehensive examination appropriate for the particular option will be required as a condition for admission to candidacy for the degree.

Within two weeks after taking the comprehensive examination, the student will be notified in writing by the examination committee of the results. The committee will have reached one of the following decisions:

* Pass, file papers for candidacy.
* Pass, but the student must complete certain additional requirements.
* Pass in part, student must retake the unacceptable part at the next scheduled examination time or after the student has completed certain additional requirements.
* Unacceptable (first attempt), student must complete certain additional requirements before retaking the examination.
- Unacceptable (second attempt), student's situation will be reviewed by the Supervisory Committee in consultation with the Graduate Advisor and a graduate faculty committee of three chosen from the graduate faculty of the institution.


## Master of Arts in Sociology <br> PROGRAM OPTIONS

Program options consist of General Sociology; Clinical Sociology; and Urban/Applied Sociology. Requirements for each of the plans are listed below. One of these program options must be selected and requirements successfully completed.

Sociology 525 is exclusive of the 36 semester hours required for any of three options for the M.A. degree in Sociology.

## Urban/Applied Sociology Thirty-six (36) Semester Credit Hours <br> Course Requirements

| Core Courses..........................................................................................................$~$ |
| :--- | :--- | :--- |$\quad$ SCH

General Sociology
Thirty-six (36) Semester Credit Hours
Course Requirements

| Core Courses ................................................................................................... ${ }_{\text {SCH }}$ |  |  |  |
| :---: | :---: | :---: | :---: |
| SOC 554 | SOC 557 | SOC 559 (3) |  |
| SOC 899A (3) | SOC 899B (3) |  |  |
| Required Courses.... |  |  | 15 SCH |
| SOC 623 (3) | SOC 710 (3) | SOC 750 (3) |  |
| SOC 857 (3) | SOC 893 (3) |  |  |
| Elective Courses ................................................................................ 6 SCH |  |  |  |
| SOC 530 (3) | SOC 532 (3) | SOC 539 (3) |  |
| SOC 632 (3) | SOC 639 (3) | SOC 715 (3) |  |
| SOC 739 (3) | SOC 750 (3) | SOC 840 (3) |  |
| SOC 859 (3) | SOC 880 (3) | SOC 930 (3) |  |

## Clinical/Applied Sociology <br> Thirty-six (36) Semester Credit Hours <br> Course Requirements

| Cores Courses. |  |  |  |
| :---: | :---: | :---: | :---: |
| SOC 554 | SOC 557 | SOC 559 (3) |  |
| SOC 655A | SOC 655B (3) |  |  |
| Required Courses........................................................................................... 15 SCH |  |  |  |
| SOC 634 (3) | SOC 715 (3) | SOC 720 (3) |  |
| SOC 820 (3) | SOC 950 |  |  |
| Electives ....................................................................................................... 15 SCH |  |  |  |
| SOC 530 (3) | SOC 532 (3) | SOC 545 (3) |  |
| SOC 623 (3) | SOC 710 (3) | SOC 739 (3) |  |
| SOC 840 (3) | SOC 880 (3) | SOC 893 (3) |  |

## COURSE DESCRIPTIONS

SOC 525 FUNDAMENTALS OF SOCIOLOGY (3) Review of the fundamentals of Sociological theory, methodology and statistics.

SOC 530 TOPICAL SEMINAR (3) An analysis of contemporary Sociological issues affecting individuals and groups in a rapidly changing Society.

SOC 532 SOCIOLOGY OF RELIGION (3) Religious organizations as Social systems and their changing Social functions as subsystems in changing Societies.

SOC 539 URBAN POLITICAL SOCIOLOGY (3) The application of sociological theory and explanation. To political processes and systems in urban settings. (Formerly Urban Sociology)

SOC 545 URBAN COMMUNITY SERVICE SYSTEMS (3) Analysis of service systems in selected urban communities and evaluation in terms of assessed needs.

SOC 554 ADVANCED SOCIOLOGICAL STATISTICS (3) Advanced statistical methods with emphasis on multiple regression techniques.

SOC 557 SOCIOLOGICAL THEORY (3) Examination of selected Sociological theories and their applicability to present and emerging Social realities.

SOC 559 URBAN RESEARCH METHODS (3) Urban indicators, research design and field problems in urban research.
SOC 623 SEMINAR IN SOCIAL PSYCHOLOGY (3) Selected Social psychological theories and their current role and status.

SOC 632 TOPICAL SEMINAR IN AFROCENTRIC STUDIES (3) The role of African contributions to the development of knowledge.

SOC 634 CRIMINAL JUSTICE AND THE URBAN COMMUNITY (3) Critical analysis of the subsystems of the criminal justice system and their impact on the urban community.

SOC 639 SEMINAR IN URBAN SOCIOLOGY (3) Social and demographic characterization and organization of urban communities with emphasis on techniques of identifying structures, institutions, systems and leadership. (Formerly Urban Political Sociology)

SOC 655A \& B INTERNSHIP (6) Supervised work and instruction in formal organizations relevant to the student's area of specialization. May be repeated once for credit.

SOC 710 SOCIAL STRATIFICATION (3) An advanced level of the development and analysis of Social inequality and Social differentiation among groups. (Formerly Analysis and Design of Human Systems)

SOC 715 SOCIOLOGY OF LEARNING (3) Examination of schools and classrooms as Social environments and sociocultural principles for desired teaching strategies and learning.

SOC 720 SEMINAR IN CLINICAL SOCIOLOGY (3) Presentation and analysis of the creation of Sociological knowledge and the clinical application of that knowledge to various settings of group life.

SOC 739 SEMINAR IN PUBLIC AND SOCIAL POLICY (3) Policy analysis, design and implementation issues related.

SOC 750 SEMINAR IN ETHNIC STUDIES (3) The analysis of selected themes from regions or nations where ethnic diversity, pluralism or differentiation is of sociological significance.

SOC 820 FAMILY THERAPY AND FAMILY RELATIONS (3)Analysis of various issues in family relations and of the various therapeutic approaches in marital and family therapy.

SOC 840 SEMINAR IN GERONTOLOGY (3) Examination of Sociological theories and explanations relevant to various socio-cultural components of aging.

SOC 857 THEORY CONSTRUCTION (3) An examination of issues related to the construction of theoretical explanations which define the nature and character of social life.

SOC 859 ADVANCED PROJECT DESIGN (3) Research and project problem definition, research and project design.
SOC 880 SOCIOLOGY OF HEALTH AND MEDICINE (3) The analysis of present and emerging Sociological conceptualizations designed to understand the development, functions, organization and processes involved in contemporary systems of health and medicine.

SOC 893 ENVIRONMENTAL SOCIOLOGY (3) Critical analysis of the relationships between various modes and patterns of Social organization and man environment relations.

SOC 896 INDUSTRIAL SOCIOLOGY (3) Planning, organizational, and infrastructural development for effective Analysis of industrial planning, organizational and infrastructural development at the macro level and application and application of Sociological principles of resource acquisition, processing, and product distribution.

SOC 899A ADVANCED PROJECT DESIGN I (3) Research and project problem definition, research and project design. (Formerly thesis)

SOC 899B ADVANCED PROJECT DESIGN II (3) Research and project data collection and analysis, research project reporting (Formerly thesis)

SOC 930 SOCIOLOGY OF HIGHER EDUCATION (3) The Social system and higher education at the macro level in selected national contexts with emphasis on the micro level of the individual higher educational institution as a mission oriented socio-technical system.

SOC 950 SEMINAR IN SOCIOTHERAPY AND PSYCHOTHERAPY (3) Examination of the Social system approaches, and the implications for diagnosis, therapeutic intervention and change.




## JESSE H. JONES SCHOOL OF BUSINESS



# Jesse H. Jones <br> School Of Business 

THE JESSE H. JONES SCHOOL OF BUSINESS

## OVERVIEW

The Jesse H. Jones School of Business consists of two departments: Accounting and Business Administration. The School of Business, through the Graduate School, offers the Master of Business Administration.

The School is administratively organized with a dean who is assisted by an Associate Dean, an Assistant Dean for Research and Development, and an Assistant Dean for Business Student Services. Each of the departments in the School is headed by a Faculty Chair. All administrative offices are located in the Jesse H. Jones School of Business Building located at the corner of Tierwester and Cleburne.

## MISSION STATEMENT

The mission of the Jesse H. Jones School of Business is to prepare students for positions of responsibility in a competitive business environment by fostering stimulating, interactive learning that stresses student involvement, business professionalism, and academic excellence. The School is committed to providing students with expertise and skills in specific business disciplines that emphasize the philosophical, social, ethical, technological, and economic context of a rapidly changing, global, and increasingly multicultural society. Developmental experiences are provided through programs designed to enhance:

- Critical thinking and problem-solving skills
- Professional attitudes and an appreciation for the role of business in a free enterprise economy
- Quantitative and analytical skills
- Verbal and nonverbal communication skills
- A global awareness and appreciation for cultural diversity
- Ethical decision-making skills
- Team-building
- Self-confidence and poise

The School's emphasis is on quality teaching supported by research and professional service. A wide range of intellectual contributions that reflects the expertise of the faculty is seen as complementary to and supportive of the primary goal of providing quality education to students. Thus, research on teaching and issues related to instructional development are as important as applied and theoretical research.

## Master of Business Administration

The objective of the MBA program is to educate a diverse group of men and women by providing them with the knowledge, analytical ability, and management skills necessary for leadership positions in a world characterized by a diverse work force, rapid technological change, and a fiercely competitive global marketplace. The MBA program at Texas Southern University provides general management education to individuals who have aspirations for advancement from their present positions or wish to prepare themselves for a new career.

- an understanding of all basic business functions with an appreciation of how these functions are integrated and linked in the planning and execution of the overall business strategy.
- the analytical abilities necessary to interpret the changing business environment, to identify the causes of problems faced by business, and to provide innovative solutions to those problems.
- the skills necessary to communicate in an effective and persuasive manner to all audiences.
- competency in the use of information technology for communication, research, problem-solving, decision making, and information presentation.
- an appreciation of diversity which is necessary to manage the changing work force effectively and to compete in international markets.
- an ability to understand the global economy in which business operates and to design an effective strategy for competing in global markets.
- an appreciation of the ethical, legal, and regulatory issues that must be considered in management decisionmaking.


## MBA ADMISSION PROCESS

1. The deadline for submission of all admission materials is July $15^{\text {th }}$ (early submission is encouraged).
2. Your application materials should include the following:

- Evidence of a baccalaureate degree from an accredited institution.
- An official transcript of all undergraduate course work.
- A GMAT score (score must be from a test taken within the last five (5) years of your application date to be considered).
- A career objective essay.
- Two letters of recommendation.
- A résumé.
- Official TOEFL (Test of English as a Foreign Language score if your native language is not English, unless you received an undergraduate degree from a U.S. college or university ( 550 or 213 computer base).

3. Applicants must present a Graduate Management Aptitude Test (GMAT) score which is considered along with the applicant's undergraduate grade point average. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
4. The applicant's performance during a personal interview.

Graduate application materials are received by the Graduate School and are forwarded to the Jesse H . Jones School of Business for review by a faculty committee. The results are sent back to the Graduate School for the final admission decision.

## COURSE REQUIREMENTS

The Master of Business Administration degree requires 39 hours of course work, including 12 hours of electives that allow students to build depth of knowledge in a particular business discipline.

The following core subjects must be completed as prerequisites to the MBA level courses:

- Financial Accounting
- Legal Environment of Business
- Principles of Finance
- Principles of Management
- Statistics
- Operations/Production Management
- Principles of Marketing


## CURRICULUM SUMMARY <br> MBA Course Requirements

ACCTG 631 Seminar in Managerial Accounting ..... 3 SCH
ECON 621 Economic Analysis ..... 3 SCH
FIN 652 Managerial Finance ..... 3 SCH
MGMT 630 Managerial Communication ..... 3 SCH
MGMT 636 Organizational and Management Theory ..... 3 SCH
MGMT 670 Global Strategic Management ..... 3 SCH
MGSC 624 Statistical Analysis. ..... 3 SCH
MGSC 671 Information Technology ..... 3 SCH
MKTG 650 Strategic Marketing Management ..... 3 SCH
ELECTIVES ..... 12 SCH
Twelve (12) semester hours of elective courses

## DEGREE REQUIREMENTS

Master of Business Administration

The minimum general requirements for the Master of Business Administration degree are:

1. A minimum of 3.0 grade point average is required for all graduate work attempted.
2. A residency of at least one academic year, or its equivalent, is required.
3. Courses transferred may not exceed 6 semester hours, and a grade of " B " or better must have been earned in each course.
4. Not more than 6 semester hours of "C" work is accepted toward satisfying graduation and degree requirements.
5. The program must be completed within 6 calendar years.
6. All graduate students are required to pass an English proficiency exam during their first semester or obtain a passing grade in English 501.
7. To be considered full-time, a student must register for at least 9 semester hours of graduate work per semester. A normal course load consists of 12 semester hours. The maximum load that can be taken is 15 semester hours. A student who takes 15 semester hours must have an overall graduate grade point average of 3.5 or better and not be employed full-time.

## COURSE DESCRIPTIONS

ACCTG 600 Oil and Gas Accounting and Taxation Institute (9) Petroleum accounting and taxation. This is a comprehensive course in oil and gas accounting. It covers the fundamentals of the petroleum industry as well as the complex topics of revenue accounting and taxation.

ACCTG 631 SEMINAR IN MANAGERIAL ACCOUNTING (3) An examination of the theoretical and practical issues involved in managerial accounting. Emphasis is on contemporary issues in managerial accounting. (Prerequisite: ACCTG 231 or ACCTG 636)

ACCTG 636 FINANCIAL ACCOUNTING (3) (CPA 150 hour requirement NON-DEGREE course) An analysis of financial statements, of publicly held entities, which are issued to shareholders, creditors, financial analysts, and other interested parties. (Prerequisite: ACCTG 332)

ACCTG 647 MANAGERIAL AND COST ACCOUNTING (3) (CPA 150 hour requirement NON-DEGREE course) A study of the kind of information needed, where information can be obtained and how information can be used by managers to carry out their planning, controlling, and decision-making responsibilities. (Prerequisite: ACCTG 336)

ACCTG 650 STRUCTURE OF ACCOUNTING THEORY (3) Principles, concepts and problems underlying the recording of accounting data; management of information and its relation to income determination. Analysis and interpretation of principal accounting statements are also covered. (Prerequisite: ACCTG 332)

ACCTG 651 CONTEMPORARY ISSUES IN ACCOUNTING (3) An analysis of new pronouncements of authoritative bodies along with the impact of these bodies on contemporary accounting practice. (Prerequisite: ACCTG 332)

ACCTG 655 SEMINAR IN TAXATION (3) A review and an analysis of tax consequences; implications of business decisions and accounting procedures; tax research and planning. (Prerequisite: ACCTG 332)

ACCTG 656 ACCOUNTING INFORMATION SYSTEMS (3) An analysis of the sources, cost and values of accounting information, including analysis and design of computer-based accounting information. (Prerequisite: ACCTG 332)

ACCTG 657 SEMINAR IN AUDITING (3) An examination of the development of auditing standards and philosophies; contemporary developments in auditing theory and practice; and research needs of the auditing profession. (Prerequisite: ACCTG 433)

ACCTG 658 ACCOUNTING CONTROLS (3) A study of the concepts and roles of accounting controls in a business organization. (Prerequisite: ACCTG 631 or 433)

ACCTG 660 ADVANCED TOPICS IN ACCOUNTING (3) The study and research of business consolidations, partnerships, governmental and not-for-profit accounting. (Prerequisite: ACCTG 332)

ACCTG 665 ACCOUNTING INTERNSHIP (3) Faculty-supervised work experience in accounting where written reports are required. (Prerequisite: Graduate student)

## Business Administration

ECON 621 ECONOMIC ANALYSIS (3) Analysis of micro and macro economic concepts. Includes aggregate economic analysis and the application of economic theory to managerial decision making. (Prerequisites: ECON 231-232 or equivalents; MGSC 671 or concurrent enrollment)

FIN 650 INVESTMENT MANAGEMENT (3) Theory and practice of pricing and evaluation of stocks, bonds, options, futures, and mutual funds. Includes portfolio theory and management and global investments. (Prerequisite: FIN 301 or equivalent)

FIN 652 MANAGERIAL FINANCE (3) The theory and practice of financial decision making, including tools and techniques for making financial decisions, including those arising from globalization and ethical challenges. (Prerequisites: FIN 301 or equivalent; MGSC 624)

MGMT 630 MANAGERIAL COMMUNICATION (3) Development of oral and written communication skills, including the use of current computer technology.

MGMT 636 ORGANIZATIONAL AND MANAGEMENT THEORY (3) Individual, group and intergroup behavior within organizations in the context of technological change, workforce diversity, ethical challenges, and globalization. (Prerequisites: BA 234; MGMT 300; or equivalents)

MGMT 646 GRADUATE SEMINAR IN MANAGEMENT (3) In-depth exploration of selected topics in organization and management theory. (Prerequisite: MGMT 300 or equivalent)

MGMT 670 GLOBAL STRATEGIC MANAGEMENT (3) A cross-functional approach to the analysis of strategic decision making in the context of a global economy. (Prerequisites: MGMT 636; FIN 652; ACCTG 631; MKTG 650)

MGSC 624 STATISTICAL ANALYSIS (3) Use of statistical techniques for business research, analysis, and forecasting. Includes regression analysis and other econometric tools and the use of computer software. (Prerequisites: MGSC 239; MGSC 302)

MGSC 654 SPECIAL TOPICS IN QUANTITATIVE ANALYSIS (3) In-depth exploration of selected topics in quantitative analysis. (Prerequisite: MGSC 624)

MGSC 671 INFORMATION TECHNOLOGY (3) The use of information technology to analyze business problems. Includes the development of computer software skills.

MKTG 634 MARKETING RESEARCH (3) Application of research and analytic decision-making techniques to marketing problems. (Prerequisites: MKTG 306; MGSC 239; MGSC 671 or concurrent enrollment)

MKTG 650 STRATEGIC MARKETING MANAGEMENT (3) Key marketing problems of domestic and international organizations, including those arising from issues related to globalization, environmental protection, ethical issues, social trends, and legal constraints. (Prerequisites: MKTG 306 or equivalent; MGSC 671 or concurrent enrollment)


## COLLEGE OF EDUCATION



## College of Education

The mission of the College of Education is to provide competent career professionals for effective service in urban schools and agencies. Through research, collaboration, and application, the college seeks solutions to teaching, learning and behavioral issues facing America's urban population. The College of Education offers the Master of Education, the Master of Science, and the Doctor of Education degrees.

The Master of Education is offered in the Department of Counseling. Educational Administration and Educational Supervision are offered through the Department of Educational Leadership and Policy. The Master of Science degree is offered in Health and in Human Performance through the Department of Health and Kinesiology. The Master of Education degree in Curriculum and Instruction and in Secondary Education are offered through the Department of Curriculum and Instruction.

The Doctor of Education degree options in Counselor Education are offered in the Department of Counseling and Educational Leadership options are offered in the Department of Educational Leadership and Policy. The Doctor of Education in Curriculum and Instruction is offered through the Department of Curriculum and Instruction.

## MASTER'S DEGREE PROGRAMS

## Counselor Education

The program of study leading to the Master of Education in Counseling is designed to prepare prospective counselors with the tools and techniques essential for an understanding of the individual's educational, vocational, health, and Social problems. The degree requires forty-eight (48) semester hours and includes a practicum in a school and/or Social agency setting. The student may elect to take additional course work and thereby become eligible to take the Texas State Board Examination for Licensed Professional Counselors.

## Educational Administration

The Master of Education in Educational Administration emphasizes the preparation of individuals for the role of administrator of elementary and secondary schools. The program focuses on helping potential administrators become more humanistic in their approach to the solution of problems. Special attention is given to the decision-making process, and stressing the worth of the individuals who make up student groups, teaching staffs and school patrons.

## Educational Supervision

The Master of Education in Educational Supervision emphasizes the preparation of individuals for the role of supervision in elementary and secondary schools. The program focuses on potential supervisors becoming more humanistic in their approach to the solution of problems. Special attention is given to the decision making process, and stressing the worth of the individuals who make up student groups, teaching staffs, and school patrons.

## Curriculum and Instruction

The Master of Education in Curriculum and Instruction is offered at both the elementary and secondary levels. The elementary options are Reading Education, Early Childhood Education, Special Education, and Bilingual Education.

The choice of specializations at the secondary level is limited to areas currently taught in the secondary school. Some of those specialties include Art, English, Music, Math, Physical Education, Reading, Spanish, and Special Education.

Credit in professional development courses taken at other institutions is not accepted toward degree requirements. However, in order to avoid duplication of previous work, a student may be exempted from some required courses by taking an examination. Exemption from the required course would require that a student enroll in a more advanced course to satisfy the credit hour requirements of the program.

## Health and Human Performance

The Department of Health and Kinesiology offers two graduate degrees: the Master of Science in Health and the Master of Science in Human Performance. The objectives of these programs are to prepare students for:

1. additional study leading to the terminal degree.
2. service in urban, multicultural environments.
3. managing wellness; and health related fitness programs.
4. various coaching fields.

## DOCTORAL PROGRAMS DOCTORAL CENTER FOR PROGRAMS IN URBAN EDUCATION

In July, 1997, the Texas Higher Education Coordinating Board (THECB) authorized the University to establish, in the College of Education, the Doctoral Center for Urban Education. The Doctoral Center has the primary responsibility for conceptualizing, developing and fostering collaboration among the several doctoral program areas in education, linking student dissertations, faculty research, and investigation of a broad array of problems encountered by public and private school educators, in their quest to improve the educative process.

The Center is the general research framework under which the three doctoral programs, Counselor Education, Curriculum and Instruction and Educational Leadership and Policy will function. The mission of the Center is to significantly increase the number of graduates who will study policy, practice and education related issues endemic to urban communities. Graduates of the Center will be prepared to serve in a number of arenas such as school districts, other educational settings, in government and medical institutions, foundations, and private practice. Collaboration between faculty and students link faculty research, dissertations, and reflective practice. The Center is staffed by a cadre of core professors who work directly with doctoral students

## Educational Administration

The Department of Educational Leadership and Counseling offers a program leading to the Doctor of Education degree in Educational Administration. The program consists of prescribed sets of knowledge and skills that the student is expected to develop.

Educational Administration encompasses knowledge and skills from entities which either provide, regulate, or affect the formalized educational efforts of Society. Thus, innovative, flexible approaches utilizing courses, seminars, field experiences, research projects, and other educational media are used to provide the technical, conceptual, and human skills required of educational leaders. Under the direction of the student's doctoral advisory committee, course plans are developed to meet individual needs, backgrounds, and future goals of each student.

Field experience opportunities are available to help students relate academic and theoretical work to the issues and concerns of administrative practices.

## Counselor Education

The Doctor of Education degree program in Counselor Education is designed to prepare graduates who are highly competent in professional counseling skills in research as well as produce effective leaders in educational and human services arenas in the urban community. Building upon the prerequisite of a relevant master's degree, the doctoral student is provided a series of academic, laboratory, and internship experiences aimed at the development of a broad base in educational foundations, a specialization in counseling, and additional breadth in preparation through exposure to a supporting area related to the field of the major. The minimum requirement for the doctoral degree is sixty (60) semester hours, plus six (6) hours of doctoral dissertation.

## Curriculum and Instruction

The Doctor of Education program in Curriculum and Instruction is the advanced professional degree for teachers and instructional specialists who will serve in a variety of settings, including public schools and institutions of higher education. The objective of the doctoral concentration in Curriculum and Instruction is the preparation of professionals who are competent in curriculum design and instructional application from pre-kindergarten through university.

## RESEARCH COMPONENT

The research component of the doctoral program begins early in the process and culminates in a doctoral dissertation for which the student earns 6 semester hours. Through related courses in the education core and the dissertation research project, the student develops research competencies that can be applied toward the investigation of problems in the major field. Students are involved in the research activities of the faculty, and are encouraged to identify and pursue their own areas of interest.

## ADMISSION REQUIREMENTS

Initial admission to the doctoral program requires: Prior completion of a master's degree with a 3.25 grade point average Curriculum and Instruction program accepts students with a Master's Degree and a teaching certificate, and/or a Master's program in natural science, education or behavioral sciences; the Counselor Education program accepts a Master's degree in Counseling, or related field(s); and the Educational Leadership and Policy program accepts two years teaching experience, a valid Texas Teacher Certificate, Texas Administrator's Certificate, and/or Professional Superintendent's Certificate], and a Portfolio demonstrating professional experience. Each program requires a combined verbal/quantitative score of 1000 on the Graduate Record Examination; competency in a foreign language will also be considered (written, spoken and comprehension); three letters of recommendation from employers and/or professors, an interview with the Doctoral Admission Committee, and a written statement on a topic in the applicant's major field of study and/or on an urban societal issue. An application will also be enhanced by a recommendation from a core faculty member and a commitment to mentor the student through program completion.

Students without prerequisite credentials must enroll in leveling courses that will not count toward the Ed.D. degree. A minimum of 60 semester hour (SH) credits beyond the Master's Degree is required for the Ed.D. The curriculum includes a 12 SH foundation core; a 18 SH professional knowledge core and 18 SH (additional hours) in the major; free electives ( 6 SH ); internship ( 6 SH ); and dissertation ( 6 SH ). All students are required to complete a two consecutive summer residency with a minimum of 12 SH .

The University will comply with all of the Texas Higher Education Coordinating Board (THECB) 1990 Standards for Ed.D. programs for Educational Leadership and Policy. All students must complete the program in eight years. Extensions will not be granted.

Persons interested in applying for admission to the doctoral programs should write directly to the Doctoral Center for Programs in Urban Education in the College of Education or the Office of the Graduate School.

## Ed.D., Counselor Education

In keeping with the urban mission of Texas Southern University, the doctoral program in counseling education seeks to prepare professional counselors who can make a significant contribution to the resolution of problems of people living in an urban environment in particular, as well as those attempting to cope with societal demands in non-urban settings. The program provides a special opportunity to address the problems of urbanization at the local, state, and national levels.

The doctoral program in Counselor Education at Texas Southern University prepares its graduates for a wide range of positions which demand a broad spectrum of knowledge and professional skills applicable to a variety of problematic situations. Many of the graduates will hold positions of leadership in counseling or human services and all graduates will make significant contributions to the fulfillment of the maximum potential of the individual. The program seeks to develop profes-
sionals who become change agents and thereby impact the system of human services such that the larger society benefits. In view of the mission of Texas Southern University to transmit and create knowledge and to provide public service, the aforementioned goals of the doctoral program in counselor education are achieved through the following specific objectives:

1. Developing doctoral level students who are competent in their understanding of the theoretical and empirical bases of the discipline of counseling;
2. Assisting students in acquiring the necessary theoretical and empirical understanding in fields related to counseling such as education, psychology, and sociology;
3. Assisting students in the acquisition of the professional competencies needed to facilitate the resolution of problems of the individual in one-on-one settings, as well as in the context of the group situation;
4. Assisting the doctoral student in the development of leadership skills needed to make significant programmatic impacts in the planning, organization and delivery of counseling services, especially in the inner-city, urban setting;
5. Assisting doctoral students in acquiring competencies in research and evaluation needed to resolve problems of counseling services in the urban community in particular and the educational and human service arena generally; and
6. Preparing doctoral level counselors with the competencies needed to function effectively in mental health and social service agencies, especially those in the urban setting.

## SPECIALIZATION COMPONENT

The Specialization requires a minimum of thirty (30) semester credit hours directed toward the development of professional competencies that graduates need to function effectively in the field of human services. The training exposes the student to the theoretical and applied aspects of counseling which are presented to them or acquired through several avenues, including educational technology, demonstrations, laboratory courses, practice and internships.

## ADMISSION REQUIREMENTS

## Counselor Education Program

Graduate School policies governing admission to the Doctor of Education degree program are followed in admitting students to Counselor Education. Students must apply for admission to the doctoral program through the Graduate School by filing the general application form and the doctoral application with the Graduate School.

Completed applications are reviewed by the College of Education Core faculty in the major area and the name of applicants recommended for admission are submitted to the Graduate School. Upon approval by the Dean of the Graduate School, applicants are notified of the action taken on their applications.

## CRITERIA FOR ADMISSION

Minimum requirements for admission to the Doctor of Education degree program:

1. Have an earned master's degree or its equivalent in a degree program with a grade point average of $3.25(\mathrm{~B}+)$ from an accredited institution of higher education.
2. Hold or earn, before completing the program, a teaching or administrative certificate, unless the area in which the individual specializes does not require certification.
3. Have a minimum of two (2) years of successful professional experience in teaching, administration, supervision, counseling or other career service, for example, personnel in business and industry, counselor, etc.
4. Submit recommendations from at least three persons including two (2) college faculty members in applicant's most recent academic program and at least one (I) immediate supervisor of the applicant's professional work.
5. Demonstrate acceptable proficiency in the use of the English language based upon performance on a standardized English Proficiency Test. (Performance on the Verbal portion of the GRE may be considered as adequate by the Doctoral Admission Committee.)
6. Have a personal interview with the department chair and faculty members in the area of planned academic concentration.
7. Make a score of at least 500 on the TOEFL, if the applicant is a foreign student.
8. Applicants must present a Graduate Record Examination (GRE) scores (combined verbal and quantitative) which are considered along with the applicant's undergraduate grade point average. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.
9. The applicant's performance during a personal interview.

## Ed.D., Counselor Education <br> CURRICULUM SUMMARY <br> Semester Credit Hours Required: 60

| 1. Leveling courses .......................................................................................... 9 SCH |  |  |
| :---: | :---: | :---: |
| COUN 589 (3) | COUN 632 (3) | COUN 735 (3) |
| COUN 736 (3) | COUN 831 (3) | COUN 832 (3) |
| COUN 834 (3) | COUN 903 (3) | COUN 905 (3) |
| 2. Foundation Core ..................................................................................... 12 SCH |  |  |
| EDC1 902 (3) | EDCI 931 (3) | EDCI 932 (3) |
| EDCI 980 (3) | EDFD 997 (3) |  |
| 3. Core Courses ............................................................................................ 15 SCH |  |  |
| COUN 911 (3) | COUN 913 (3) | COUN 914 (3) |
| COUN 915 (3) | COUN 918 (3) |  |
| 4. Additional Required Courses .......................................................................... 15 SCH |  |  |
| COUN 910 (3) | COUN 912 (3) | COUN 916 (3) |
| COUN 917 (3) | COUN 920 (3) |  |
| 5. Elective Courses ............................................................................................ 6 SCH |  |  |
| COUN 921 (3) | COUN 922 (3) | COUN 923 (3) |
| COUN 941 (3) | COUN 942 (3) COUN 943 | (3) |
| COUN 944 (3) | COUN 851 (3) COUN 989 |  |
| PSY 739 (3) | PAS 943 (3) |  |
| 6. Internship .................................................................................................... 6 SCH |  |  |
| COUN 919 (6) |  |  |
| 7. Dissertation $\qquad$ COUN 999 (6) | $\qquad$ | $\text { .......................................... } 6 \text { SCH }$ |

## COURSE DESCRIPTIONS

COUN 911 INDIVIDUAL APPRAISAL IN GUIDANCE (3) Analysis and techniques of individual appraisal in guidance and counseling services.

COUN 912 PRINCIPLES AND FOUNDATIONS (3) Philosophical, psychological and sociological concepts fundamental to guidance and related professions; rationales and models designed to integrate guidance functions and curriculum.

COUN 913 COUNSELING AND INDIVIDUAL CASEWORK (3) Consideration is given to the counseling process, theories of behavior underlying different approaches to counseling.

COUN 914 SUPERVISED COUNSELING (3-6) This course is designed to demonstrate skill development utilization modifications of the Micro-counseling Model in a laboratory setting. Individual study with a weekly seminar. May be repeated.

COUN 915 LIFESTYLE CAREER ASSESSMENT (3) A study of various methods, instruments, and techniques used in determining occupational aptitudes and interest of students.

COUN 916 STUDENT PERSONNEL SERVICE (3) An examination and investigation of critical issues in community college personnel work. Seminar reports required.

COUN 917 SEMINAR II-COUNSELING SOCIAL ISSUES (3) Courses for advanced students in guidance who wish to make a study of specific problems of their own choosing.

COUN 918 SEMINAR III-URBAN ISSUES IN COUNSELING (3-6) A course affording the opportunity and challenge of self-directive, independent study, enabling the student to pursue needed study in a field appropriate to the curriculum design. Hours to be arranged.

COUN 919 INTERNSHIP (6) Application of academic preparation in a professional employment setting. Independent study with weekly consultation. Hours to be arranged. May be repeated

COUN 920 RESEARCH IN COUNSELING (3) Research methods related to counseling issues will be studied. Develop research models for mental health counseling.

COUN 921 COUNSELOR SUPERVISION (3) Emphasis on the role of the counselor supervisor and the dynamics of supervisory relationships. Review of the literature in counselor supervision will be examines and discussed. Laboratory supervising a counseling practicum. (Prerequisites: COUN 914, 989)

COUN 922 CONSULTATION: THEORY AND TECHNIQUES (3) History and Theory of various modes of consultation in counseling. Review of skills and techniques necessary for effective consultation will be explored.

COUN 941 PARENT AND FAMILY COUNSELING (3) The study of family systems and effective strategy for urban family intervention. (Prerequisite: Approval of instructor)

COUN 942 MARRIAGE/COUPLES COUNSELING (3) Application of relationship counseling theory to the study of individual development, interpersonal relationships, marital systems, and conflict resolution. (Prerequisite: Approval of instructor)

COUN 943 CHILD COUNSELING AND PLAY THERAPY (3) The study of learning and behavioral patterns of children and the utilization of play media to facilitate self-expression, self-understanding, and personal growth and development.

COUN 944 TOPICS IN AGING (3) In-depth analysis and discussion of selected significant subjects in aging and geriatrics.

COUN 951 DRUGS AND ADDICTION (3) The special application of principles of drugs and addiction to the urban population.

COUN 989 SEMINAR IN COUNSELING: CASE MANAGEMENT AND TREATMENT (6) Application of clinical diagnosis with use of Diagnostic and Statistical Manual (DSM) specifically using the diagnostic tree. Treatment plans and case management for short and long-term goals are explored.

COUN 999 DISSERTATION (6) Research for dissertation. Hours to be arranged.

## Ed.D., Curriculum and Instruction

The Doctor of Education degree in Curriculum and Instruction is the advanced professional degree for teachers and instructional specialists who will serve in a variety of settings, including public schools and institutions of higher education.

The mission of the doctoral program in Curriculum and Instruction is the preparation of professionals who are competent in curriculum design and instructional application. The Curriculum and Instruction concentration is designed to develop personnel who:

1. demonstrate a thorough knowledge of existing research in curriculum and instruction;
2. demonstrate a thorough knowledge of the historical, sociological, psychological and political theories underlying curriculum revision and development;
3. will be able to build upon their existing teaching experiences to provide a philosophical basis for generating new knowledge and adding to the existing knowledge in curriculum and instruction;
4. demonstrate an awareness of how diverse ethnic and cultural backgrounds impact curriculum design and instructional implementation;
5. demonstrate facility in planning, developing, implementing, and evaluating curriculum;
6. demonstrate a thorough knowledge of curriculum theory;
7. demonstrate a thorough knowledge of the different curriculum evaluation procedures;
8. demonstrate an understanding of the interrelationship between curriculum development and instructional application;
9. demonstrate effective and efficient knowledge of instructional techniques;
10. demonstrate an awareness and knowledge of the different teaching models;
11. demonstrate a thorough knowledge of statistical tools necessary for research;
12. demonstrate a thorough knowledge of the different research methods; and
13. conceptualize and develop a comprehensive research project, utilizing statistical tools, research methods, and theory related to curriculum and instruction.

## PROGRAM OF STUDY

The program of study includes a minimum of sixty ( 60 ) semester hour credits beyond the master's degree. The curriculum would include a 15 semester hour foundation core; a 15 semester hour professional knowledge core and 15 semester hours (additional hours) in a major for a total of 30 semester hours; free electives ( 6 semester hours); internship ( 6 semester hours); and dissertation ( 6 semester hours). All students would be required to complete a two consecutive summer residency with a minimum of 12 semester hours. Twelve (12) semester credit hours must be completed after being admitted to candidacy. The distribution of the course work taken beyond the master's degree will be as follows:

## CURRICULUM SUMMARY



## COURSE DESCRIPTIONS

EDCI 540 CURRICULUM AND INSTRUCTION (3) Analyses procedures used in the administration and implementation of curriculum programs in public schools.

EDCI 633 TECHNIQUES OF EDUCATIONAL RESEARCH (3) Experiences essential to the development of a basic knowledge and understanding of the place of research in the field of education; its methods and techniques, the characteristics of a research report and of the researcher, and processing data.

EDCI 900 URBAN RESEARCH, PLANNING (3) Provides student opportunities to direct personal learning experiences in urban environments and to create common essential knowledge about positive changes for inner-city schools.

EDCI 901 RESEARCH, PLANNING AND DEVELOPMENT IN URBAN EDUCATION (3) Stresses significant sociological, psychological, philosophical and educational theories related to improving current educational practice.

EDCI 920 CURRICULUM RESEARCH AND DEVELOPMENT IN URBAN SCHOOL (3) Presents a review of current research related to curricula development for special urban populations. Emphasis is given to research that provides a theoretical base for curriculum development.

EDCI 921 ADVANCED CURRICULUM DEVELOPMENT (3) Focuses on the scope and sequence of school curricula, correlation of school study, in-service education for instructional staff, and utilizing the community in curriculum development.

EDCI 927 INDEPENDENT STUDY AND RESEARCH (3) Creates opportunities for doctoral students' active engagement in research problems of personal interest.

EDCI 931 CLASSROOM MANAGEMENT (3) Presents an analysis of modem techniques for managing the instructional environment with emphases on student-centered and pro-active approaches to preventing classroom and school-wide disruptions.

EDCI 932 URBAN TEACHING STRATEGIES (3) Provides students the opportunity to develop and test a variety of teaching strategies which may be particularly effective and appropriate for the urban learner.

EDCI 938 TECHNIQUES OF CURRICULUM EVALUATION (3) Presents modern techniques of evaluating school curricula. Specific emphasis on specifying entry criteria and on formative discrepancy, and summative evaluation techniques

EDCI 939 MODELS OF TEACHING (3) Presents a survey of modern instructional models of teaching with emphasis on information processing, personal, social, and behavior approaches.

EDCI 940 ADVANCED CURRICULUM AND INSTRUCTION (3) Focuses on the scope and sequence of developing a school curriculum, correlation of school studies, staff development for instructional staff, and utilizing the community for curriculum development.

EDCI 944 CURRICULUM THEORY (3) Presents a survey of modern curriculum theories with emphasis on the various philosophies, techniques and sources for determining needs for the total curriculum development process.

EDCI 950 CURRENT TRENDS IN CURRICULUM DEVELOPMENT (3) Presents current theories relative to the systemic approach to curriculum development. Emphasis on deductive and inductive approaches to systemic curriculum development.

EDCI 960 CURRENT TRENDS IN EFFECTIVE TEACHING PRACTICES (3) Presents current trends on effective teaching practices. Emphases on interactive instruction, technological teaching approaches, cooperative learning, time on task, appropriate feedback, instructional rewards and consequences, and instructional and behavioral expectations.

EDCI 983 PREPARING EDUCATORS FOR URBAN SCHOOLS (3) Explores alternate methods of teacher preparation specifically for urban areas. Topics to be considered: Learner in Urban Settings, Curricula Adoptions, Union Contracts, and School Community Relations.

EDCI 985 TECHNIQUES FOR INDIVIDUALIZED INSTRUCTION (3) Presents a systemic approach to designing curricula appropriate for advanced graduate students. The course focuses on the development of theoretical frameworks for continuous progress philosophies, missions, goals, objectives, activities, organization designs and evaluation.

EDCI 995 PRACTICUM IN URBAN EDUCATION I (3) Creates opportunities to apply Urban Education theory to urban/inner city problems that impact the education of children and young adults. Urban/inner city schools and other agencies will be used for this practical experience.

EDCI 996 EDUCATION AND THE URBAN DILEMMA (3) Focuses on the educational systems in the city with particular emphasis on the racial, economic, and political dilemmas of schools in the inner-city.

EDCI 998 PRACTICUM IN CURRICULUM AND INSTRUCTION (3) Creates opportunities to apply curriculum and instruction theory and practice to problems and conditions that impact urban, lower-income students and young adults. Inner-city schools/communities, district administrative offices and cooperate sectors will be used for this practical experience.

EDCI 999 DISSERTATION (3-12) Engages students in an intensive study of a selected and approved topic. (Total: 12 credit hours)

## Ed.D., Educational Administration

The Department of Educational Leadership and Counseling offers a program concentration leading to the Doctor of Education Degree in Educational Administration.

Educational Administration encompasses knowledge and skills from entities which either provide, regulate, or affect the formalized educational efforts of society. Thus, innovative, flexible approaches utilizing courses, seminars, field experiences, research projects, and other educational media are used to provide the technical, conceptual, and human skills required of educational leaders.

Under the direction of the student's doctoral advisory committee, course plans are developed to meet individual needs, backgrounds, and future goals of each student.

## GENERAL REQUIREMENTS

In addition to meeting the requirements for the Doctor of Education Degree as set forth in this bulletin, students majoring in Educational Administration shall:

1. Submit an application for admissions to the department program on forms provided by the Graduate School.
2. Meet the requirements of the Department's Doctoral Screening Committee.
3. Organize, with the approval of the Department Chairperson, a doctoral committee foe advisement. The chairperson shall be from the Department of Educational Leadership and Counseling.
4. File an approved course plan with the Chairman of the doctoral committee and the Graduate School Office.
5. Complete a doctoral internship approved by the student's committee (if required).

## SPECIFIC REQUIREMENTS

Specific requirements will be determined by the student's doctoral committee consistent with the requirements of the Graduate School and of the Department.

## CURRICULUM SUMMARY <br> Doctor of Education <br> Educational Administration <br> Total Semester Credit Hours Required: 60

| 1. Leveling Courses |  |  |  |
| :---: | :---: | :---: | :---: |
| EDCI 632 (3) | EPSY (831 (3) | EDFD 903 (3) |  |
| EDFD 905 (3) |  |  |  |
| 2. Foundation Core ........................................................................................ 12 SCH |  |  |  |
| EDFD 902 (3) | EDFD 931 (3) | EDFD 932 (3) |  |
| EDFD 980 (3) | EDFD 997 (3) |  |  |
| 3. Core Courses .............................................................................................. 15 SCH |  |  |  |
| EDAS 900 (3) | EDAS 936 (3) | EDAS 950 (3) |  |
| EDAS 955 (3) | EDAS 973 (3) |  |  |
| 4. Additional Required Courses ....................................................................... 15 SCH |  |  |  |
| EDFD 932 (3) | EDFD 933 (3) | EDAS 935 (3) |  |
| EDAS 939 (3) | EDAS 953 (3) | EDAS 961 (3) |  |
| EDAS 985 (3) | EDAS 988 (3) | EDAS 998 (3) |  |


| 5. Electives .................................................................................... 6 SCH |  |  |  |
| :---: | :---: | :---: | :---: |
| ENG 533 (3) | ENG 832 (3) | ENG 834 (3) |  |
| PAD 621 (3) | PAD 650 (3) | PAD 651 (3) |  |
| EDHI 933 (3) | EDHI 937 (3) | EDHI 939 (3) |  |
| EDHI 942 (3) | EDHI 970 (3) |  |  |
| 6. Internship .......................................................................................... 6 SCH |  |  |  |
| EDAS 978 |  |  |  |
| 7. Dissertation $\qquad$ 6 SCH EDAS 999 |  |  |  |
|  |  |  |  |

## COURSE DESCRIPTIONS

EDAS 900 EDUCATIONAL POLICY DEVELOPMENT (3) Provides an understanding of how educational policy is developed and implemented, and an awareness that factors and mechanics involved, address the needs of a pluralistic society.

EDAS 932 PUBLIC SCHOOL RELATIONS AND SCHOOL/COMMUNITY AFFAIRS (3) Focus of the importance of improving channels of communication between home, school and community, and the responsibility of the school in assuming leadership in this effort. Analysis of current educational publications and practices of producing relations materials.

EDAS 933 SYSTEMS MANAGEMENT OF SCHOOLS (3) In-depth study of the system approach to decision-making in education focusing on problems related to design, implementation and evaluation.

EDAS 935 SCHOOL ADMINISTRATIVE HIERARCHY (3) Survey course that examines role, function, duties, and responsibilities of school leaders at varying levels in governance and administration of school programs.

EDAS 936 DOCTORAL SEMINAR IN SCHOOL LAW (3) Study of laws as they relate to administrators, teachers, pupils, authority of local and state officials, property finance, and liability of school districts with emphasis on laws relating to urban education.

EDAS 939 PLANNING FOR EDUCATIONAL CHANGE (3) Study of planning process and implementation of change, particularly as it reflects on the urban community.

EDAS 950 SCHOOLS AND THE COMMUNITY (3) Study of schools and their relationship with a pluralistic community. Emphasizes techniques to encourage involvement of all groups.

EDAS 953 EVALUATION OF SCHOOLS (3) Emphasizes techniques for evaluating secondary and elementary schools. Studies criteria of the Southern Association of Colleges and Schools and the Texas Education Agency.

EDAS 955 ORGANIZATION AND ADMINISTRATION THEORY (3) Review and analysis of important trends in behavioral, human relations, scientific and systems theory in the organization and management of schools.

EDAS 961 INDEPENDENT STUDIES IN EDUCATIONAL ADMINISTRATION (1-6) Independent study or research on issues of education in an urban setting. (May be repeated).

EDAS 973 LEADERSHIP SEMINAR (3) Examines leadership concepts and research findings as they relate to the urban community.

EDAS 978 DOCTORAL INTERNSHIP (6) Application of doctoral studies in practice supervised by field administrator and/or University faculty member. Related seminars.

EDAS 985 SEMINAR IN SUPERVISION (3) Discussion of theory and research in resolving current issues of curriculum content, instructional techniques, and staff development including an assessment of the impact of these on the urban, inner-city students.

EDAS 988 ADVANCED SEMINAR IN EDUCATIONAL ADMINISTRATION (3) Application of theoretical concepts from administration and related fields which are applicable to urban settings.

EDAS 998 DOCTORAL COLLOQUIUM IN EDUCATIONAL ADMINISTRATION (3) Colloquium on special topics in educational administration. May be repeated to a maximum of six (6) semester credit hours.

EDAS 999 DOCTORAL DISSERTATION (6) Thorough study and analysis of in-depth topics in Educational Administration.

EDFD 902 THEORETICAL FOUNDATIONS OF EDUCATION (3) This course is designed to review significant historical, philosophical, sociological, psychological foundations and education theories related to improving current educational practice.

EDFD 903 THE NATURE AND METHODOLOGY OF EDUCATIONAL RESEARCH (3) Major methods of conducting educational research and kinds of problems to which they apply. Studies which may serve as models for research efforts; research reporting.

EDFD 905 THE NATURE AND METHODOLOGY OF EDUCATIONAL RESEARCH (3) A continuation of EDFD 903.

EDFD 931 EDUCATIONAL RESEARCH: CORRELATION STATISTICAL METHODS (3) Brief review of elementary statistics, normal curve functions, correlation theory and application to educational data. Concepts and computations associated with bivariate, partial, and multiple correlation. (Prerequisite: EDFD 831 or instructor's permission)

EDFD 932 EDUCATIONAL RESEARCH: SIGNIFICANCE TESTS AND STATISTICAL METHODS FOR EXPERIMENTAL DESIGN (3) Probability theory and theoretical distributions in experimental design; binomial, normal curve, $T$ ratio. Concepts and computation associated with research, including $t$-tests, simple and complex analysis of variance. (Prerequisite: EDFD 931)

EDFD 997 RESEARCH SEMINAR (3) Intensive study to design applicable research problems in education. Study of problems related to proposed dissertation research. May be repeated. (Prerequisite: END 931, 932 or permission of advisor and instructor)

## Educational Psychology

EPSY 831 EDUCATION STATISTICS (3) Basic introduction to descriptive and beginning inferential statistical techniques. Consideration given to the handling of statistical data with view toward developing an ability to understand the research literature.

## Higher Education

EDHI 933 INTRODUCTION TO THE STUDY OF HIGHER EDUCATION (3) A critical examination of the American system of higher education, its origin, characteristics, with particular attention to financing, organization, and administration of colleges and universities.

EDHI 937 THE FINANCING OF HIGHER EDUCATION (3) The financing of institutions of higher education, sources of income, budgeting procedures, funding and control'

EDHI 938 CURRICULUM DEVELOPMENT IN THE COMMUNITY COLLEGE (3) Provides relevant curriculum for the clientele of the community college. Particular attention to the diverse nature of students and the relationship of the curricular components to each other.

EDHI 939 SEMINAR IN THE ADMINISTRATION OF HIGHER EDUCATION (3) Administrative functions in higher education will serve as the basis for extended examination of administrative theory, leadership technique, group dynamics, and campus governance.

EDHI 942 SEMINAR IN THE GOVERNANCE OF HIGHER EDUCATION (3) Analysis of current practices and issues of higher education. Emphasis on community junior colleges. (Prerequisite: Instructor's consent)

EDHI 970 URBAN HIGHER EDUCATION (3) Focuses on the problems and issues of higher education in the city. Subject areas include the changing demography of urban areas and implications for higher education.

## Master of Education Degree Required Foundation Courses

## COURSE DESCRIPTIONS

EDFD 576 African American Education (3) Traces the education of Black people in America from their arrival from Africa to the present.

EDFD 581 Foundations of Education (3) Deals with the sociological, economic, philosophical and historical foundations of American education. Reports and research papers provide opportunities for individual exploration of special interests.

EDCI 633 Assessment of Instruction and Research Design (3) Experiences essential to the development of a basic knowledge and understanding of the place of research in the field of education; its methods and techniques, the characteristics of a research report and of the researcher, and processing data.

EPSY 831 Educational Statistics (3) Basic introduction to descriptive and beginning inferential statistical techniques. Consideration given to the handling of statistical data with a view toward developing an ability to understand the research literature.

## M. Ed., Counseling

The program of study leading to the master's degree in the area of Counseling is designed to prepare prospective counselors, classroom teachers, and other professionals with the tools and techniques essential for an understanding of the individual and his/her educational, vocational, health, and social problems.

This program is designed for those students seeking a master's degree with provisions for certification as school counselors by the Texas Education Agency. It requires forty-eight (48) semester hours and includes a practicum in a school setting. The student may elect to take additional Licensed Professional Counselor coursework and thereby become eligible to take the Texas State Board Examination for Licensed Professional Counselors.

## AREA REQUIREMENTS

The area of Counseling requires that the individual working toward certification and/or a degree in Counseling shall possess certain qualifications which are considered necessary for school counselors and agency (non-school) counselors. The evaluation of the qualifications of the individual is based on observations of the student by members of the faculty, individual interviews with the student, the results of various standardized tests, and the student's interest in the field.

No student may receive the approval of the area for certification or candidacy for a degree in this area until this evaluation has been satisfactorily met. Ordinarily, this evaluation will be completed by the time a student has earned a minimum of 12 hours of graduate study. Any student who does not receive area approval on the basis of this evaluation will not be continued as a certificate or degree-seeking student.

The area of Counseling offers the graduate student the opportunity to pursue the Master of Education degree in Counseling, and the certificate in counseling.

## REQUIREMENTS FOR ADMISSION

In addition to meeting the general Graduate School requirements and Departmental admissions requirements, students who wish to pursue the Master of Education degree in Counseling are expected to have completed an undergraduate degree in the field of education, psychology, social work, or a related field.

For the Master of Education degree in Counseling, the Department requires that students do the following:

1. Applicants must present a Graduate Record Examination (GRE) scores (combined verbal and quantitative) which are considered along with the applicant's undergraduate grade point average. In addition to the above requirements, the socioeconomic background of applicants will be considered in the admission process.
2. Demonstrate proficiency in English by passing an examination in English or by completing the course, English 501. A GRE verbal score of 550 or more may be presented to satisfy this requirement.
3. Secure departmental recommendation to candidacy status for the Master's degree in Counseling Education.
4. Take and pass the College of Education Comprehensive Examination for the master's degree.
5. Complete the semester hour requirements specified for the designated course of study.

In addition, the following factors are considered:
a. Economic status of family when applicant was in elementary, secondary, and undergraduate school.
b. Applicant was first generation to attend undergraduate school.
c. Applicant was first generation to attend graduate or professional school.
d. Applicant is multi-lingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to raise other children in family.
g. Geographic residence in Texas of applicant at time of application.
h. Geographic region in which applicants high school is located.
i. Applicant demonstrated performance in community activities.
j. Applicant has demonstrated commitment to a particular field of study.
k. The presence or absence of role models with comparable graduate school training in the applicant's region of residence.

1. The applicant's performance during a personal interview.

## CURRICULUM SUMMARY <br> Master of Education in Counseling

| 1. General Requirements................................................................................. 12 SCH |  |  |
| :---: | :---: | :---: |
| EDFD 576 (3) | EDFD 581 (3) |  |
| EDCI 633 (3) | ESPY 831 (3) |  |
| 2. The Guidance Program ................................................................................ 3 SCH |  |  |
| COUN 638 (3) |  |  |
| 3. The Pupil Served.......................................................................................... 6 SCH |  |  |
| COUN 834 (3) |  |  |
| COUN 733 (3) |  |  |
| 4. Resource Area ........................................................................................... 24 SCH |  |  |
| COUN 539 (3) | or COUN 832 (3) |  |
| COUN 735 (3) | COUN 736 (3) |  |
| COUN 839 (3) | COUN 876 (3) |  |
| COUN 890 (3) | COUN 895 (3) |  |
| PSY 531 (3) | PSY 537 (3) |  |
|  | Total ................................. | 48 SCH |
| 5. Licensure .................................................................................................... 6 SCH |  |  |
| COUN 993 (3) PSY 739 (3) |  |  |
|  | Total ................................ | 54 SCH |

## COURSE DESCRIPTIONS Counseling

COUN 539 INTRODUCTIONTO GUIDANCE IN THE SCHOOLS (3) Application of the basic principles and techniques of guidance to the environment of junior and senior high schools.

COUN 638 ORGANIZATION AND ADMINISTRATION OF COUNSELING AND GUIDANCE SERVICES (3) Introduction to planning, organizing and administering guidance services in public schools and other agencies.

COUN 733 SEMINAR IN SOCIAL AND CULTURAL DIFFERENCES (3) The analysis of selected differences in varying social and cultural groups within the urban setting.

COUN 735 COUNSELING TECHNIQUES (3) Introduction and practiced application of counseling techniques as used in today's urban educational and/or professional settings.

COUN 736 SUPERVISED COUNSELING (3) Skill development utilizing modifications of the Microcounseling model in a supervised laboratory setting. Individual study with weekly seminars. (Prerequisite: GED 635)

COUN 832 INTRODUCTION TO COUNSELING (3) An introduction to and overview of counseling in the educational and professional setting.

COUN 834 INTRODUCTION TO COUNSELING AND PERSONALITY THEORIES (3) Both theories, counseling and personality, will be examined and studied. The theories and concepts will be explored for cognitive study.

COUN 839 PRACTICUM (3) Supervised practice in the use of assessment and other information gathering devices designed to develop counseling skills. May be repeated. Lab fee.

COUN 890 GROUP COUNSELING (3) This course is to develop knowledge and understanding of current group practices and to organize, facilitate and evaluate groups.

COUN 895 ETHICS AND PROFESSIONAL ISSUES IN COUNSELING (3) A general survey of professional, ethical and legal concerns facing the practicing counselor as applicable to schools and community agencies in the urban setting.

COUN 593 HUMAN GROWTH AND DEVELOPMENT (3) The study of the genesis and transformation of growth and developmental functions with particular reference to the acquisition of motor skills, language, attitudes, values, and group identification.

## M. Ed., Curriculum and Instruction

## PROGRAM DESCRIPTION

The Master's program in Curriculum and Instruction is designed to extend training and experiences of teachers who are certified. The curriculum prepares teachers to produce high academic achievement among culturally diverse urban student populations. social and economic influences, cross-ethnic communication, cultural differences that impact learning, linguistic differences, educationally challenging conditions, learning style differences, curriculum adaptations, and realistic academic expectations.

Program alumni are expected to serve with proficiency in traditional and nontraditional settings and to serve as models for novice teachers, especially those who teach in urban schools.

The advanced program in Curriculum and Instruction permits enrollees to review and benefit from recent research in the preparation of teachers for urban schools.

## PROGRAM OBJECTIVES

Persons completing the advanced program in Curriculum and Instruction will demonstrate:

## 1. Advanced knowledge of methods of teaching language arts.

2. Advanced knowledge of teaching reading.
3. Advanced knowledge of methods of teaching mathematics.
4. Advanced knowledge of methods of teaching social studies.
5. Advanced knowledge of methods of teaching science.
6. Advanced knowledge in a content area of the elementary school.
7. A thorough knowledge of recent research in Curriculum and Instruction.
8. Proficiency in the different research methods.
9. Proficiency in the use of various statistical tools.
10. Thorough knowledge of how ethnicity impacts learning.

## CURRICULUM SUMMARY M.Ed., Curriculum and Instruction (12 Semester Credit Hours)

|  | Foundations |  |  |  |
| :--- | :--- | :---: | :---: | :---: |
|  | (12 Semester Credit Hours) |  |  |  |

Specialization Area<br>(12-18 Semester Credit Hours)

The choice of specialization area is limited to areas currently taught in the elementary school. The specialization areas include art, early childhood, English, ESL (English as a second language), music, math, physical education, reading, Spanish, and special education.
$\qquad$

## MASTER OF EDUCATION Curriculum and Instruction Specializations

|  | Reading |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |
| RDG 574 (3) |  |  | SPED 5S7 (3) | EDCI 732 (3) |  |
| RDG 874 (3) | SPED 559 (3) | EDCI 877 (3) |  |
| RDG 875 (3) | RDG 888 (3) |  |  |


|  | Special Education |  |
| :---: | :---: | :---: |
| Required ........ |  | 18 SCH |
| SPED 552 (3) | SPED 553 (3) |  |
| SPED 554 (3) | SPED 556 (3) |  |

Early Childhood

| $\operatorname{EDCI} 520(3)$ | EDCI $521(3)$ | $\operatorname{EDCI} 524(3)$ |
| :--- | :--- | :--- |
| $\operatorname{EDCI} 525(3)$ | $\operatorname{EDCI} 528(3)$ | $\operatorname{EDCI} 527(3)$ |

## COURSE DESCRIPTIONS

Curriculum \& Instruction
EDCI 520 CURRICULUM DEVELOPMENT IN EARLY CHILDHOOD (3) Examines the theoretical bases of curriculum. Emphasis on designing curriculum appropriate for early childhood. Also includes practical application and evaluation of designed curriculum.

EDCI 521 CREATIVITY IN CHILD DEVELOPMENT (3) Explores the nature of creativity, the role of teacher and creative environments. Study of relationship of creativity to curricula areas: designing and implementation of creative activities.

EDCI 524 HOME/COMMUNITY DEVELOPMENT OF THE CHILD (3) Analyzes the relationship among the home, school, and community for optimum child development. Develops faculty in working with parents as members of the learning community.

EDC1 525 FIELD EXPERIENCE PRACTICUM IN EARLY CHILDHOOD (3) Constructs practical experiences in working with young children $3-5$ years old. In-depth observation and work with children in each domain. (Prerequisite: Instructor's consent)

EDCI 527 ADVANCED FIELD EXPERIENCE PRACTICUM IN EARLY CHILDHOOD (3) Provides advanced leadership training for graduate students interested in becoming specialists in early childhood.

EDCI 528 EVALUATION AND ASSESSMENT IN EARLY CHILDHOOD (3) Presents evaluation and assessment processes used with young children. Analyzes case studies with emphasis on application and remediation.

EDCI 531 CLASSROOM MANAGEMENT (3) Presents modern techniques for managing the instructional climate with emphasis on student-centered approaches.

EDCI 540 CURRICULUM AND INSTRUCTION (3) Analyzes procedures used in the administration and implementation of curriculum programs in public schools.

EDCI 544 DEVELOPMENT OF ENGLISH LANGUAGE SKILL (3) Analyzes state-of-the-art techniques used to teach English to speakers of other languages.

EDCI 551 MULTICULTURAL EDUCATION (3) Provides a generic framework for designing democratic school environments that produce high academic achievement among students from different ethnic and cultural groups, and examines school models that have proven successful in urban communities.

EDCI 571 TEACHING SOCIAL STUDIES IN THE ELEMENTARY SCHOOL (3) Outlines recent trends in the organization and content of the integrated social studies curriculum.

EDCI 577 LANGUAGE STUDIES IN ELEMENTARY SCHOOLS (3) Theories and practices in integrated language, teaching, and learning.

EDCI 583 TECHNIQUES OF INDIVIDUALIZED INSTRUCTION (3) Presents a systemic approach to designing curricula. The course focuses on specifying objectives, specifying contents, evaluation techniques, and alternative learning strategies.

EDCI 588 PROBLEMS AND PERSPECTIVES IN URBAN EDUCATION (3) Introduces students to the politics, economics, sociology, and human relationships in urban schools. The dilemmas of poverty, powerlessness and racial strife in contemporary cities will be studied.

EDCI 589 SECONDARY SCHOOL CURRICULUM (3) Outlines fundamental aspects of curriculum development and the basic issues underlying curriculum including systems, models, and paradigms as a means for developing a curriculum.

EDCI 616 CHANGE STRATEGIES IN URBAN SCHOOLS (3) Examines the foundations, elements and dynamics of planned change. Emphasis will be placed on the instrumentation and strategies for achieving change in urban schools.

EDCI 633 RESEARCH (3) Provides a systematic analysis and evaluation of research as applied toward academic and Community problems. (Prerequisites: Three semester credit hours of statistics)

EDCI 639 SCIENCE IN ELEMENTARY SCHOOL (3) Presents a study of the science curriculum and the methods of teaching integrated science in the elementary school.

EDCI 700 GENERAL LINGUISTICS (3) Presents an introductory study of language and its components. phonology, lexicon, syntax, morphology and semantics.

EDCI 701 APPLIED LINGUISTICS (3) Introduces linguistic concepts and contrastive analysis and their applications to practical linguistic situations.

EDCI 702 SEMINAR IN URBAN EDUCATION PROBLEMS (3) Examines special problems and characteristics of urban schools, their relationships to the inner city, to poverty, to attitudes, to socioeconomic status and ethnic backgrounds.

EDCI 703 ECONOMICS OF URBAN EDUCATION (3) Analyzes the theoretical background and practices associated with urban education in the United States. Attention given to local, state, and federal sources of school revenue.

EDCI 727 INDEPENDENT STUDY AND RESEARCH (3) Creates opportunities for students active in research problems of personal interest.

EDCI 732 PRIMARY/MIDDLE SCHOOL READING INSTRUCTION (3) Provides opportunities to study methods laboratory methods, and student-planned learning exercises and materials for improving the teaching of reading in the primary and middle schools. It explores strategies to promote an appreciation of books, and it addresses instruction for all levels.

EDCI 773 RECENT RESEARCH IN TEACHING HIGH SCHOOL SUBJECTS (3) Presents a review of research in secondary school teaching. Provides study of unit plans, laboratory methods, and student-planned learning exercises.

EDCI 832 EDUCATIONAL STATISTICAL AND INSTRUCTIONAL TECHNOLOGY (3) An introduction to state-of-the-art instructional technology and statistical applications.

EDCI 844 LANGUAGE ACQUISITION AND CULTURE (3) Analyzes studies of first and second language acquisition theories. Analyzes cultural, cognitive, linguistic, and developmental factors that affect the acquisition of a second language.

EDCI 877 CONTENT READING/STUDY SKILLS (3) Prepares participants, in a reading clinic setting, to work with students to develop reading skills appropriate to their maturity, develop therapeutic techniques for retarded readers, and master skills to organize a developmental reading program.

## M. Ed., Secondary Education

The Master's program in Secondary Education is designed to extend the existing training and experiences of teachers who are currently certified. This program addresses a wide range of issues in curriculum and instruction and classroom management. Both are very crucial areas at the middle and secondary levels. The program also provides opportunities for professionals to specialize in a chosen area that is currently taught in middle or secondary schools.

The curriculum prepares teachers to produce high academic achievement among culturally diverse urban student populations. Among the issues addressed are: social and economic influences, cross-ethnic communication, cultural differences that impact learning, linguistic differences, educationally challenging conditions, learning style differences, curriculum adaptations, and realistic academic expectations.

The program in Secondary Education permits enrollees to review and benefit from recent research in secondary education, particularly research that is related to preparation for teaching in urban settings.

## PROGRAM OBJECTIVES

Persons completing the Master of Education program in Secondary Education will be able to demonstrate:

1. Proficiency in a content area that is currently taught at the middle and secondary school;
2. Proficiency in the development of curriculum;
3. Proficiency in developing and using different instructional strategies to meet the needs of all children,
4. Proficiency in individualizing instruction to raise students' academic performance;
5. A thorough knowledge of the recent research in secondary education;
6. A thorough knowledge of various research methods and statistical tools;
7. A thorough knowledge of how ethnicity impacts learning;
8. Proficiency in use of classroom management skills.

|  | CURRICULUM SUMMARY <br> Master of Education in Secondary Education Total Semester Credit Hours: 42 |  |
| :---: | :---: | :---: |
| Major ...................................................................................................... 12.1 SCH |  |  |
| EDCI 531 (3) | EDCI 540 |  |
| EDCI 583 (3) | EDCI 589 (3) |  |
| Foundation......................................................................................... 12.1 SCH |  |  |
| EDFD 581 (3) | EDFD 576 (3) |  |
| EPSY 831 (3) | PSY 631 |  |
| Specialization*. |  | . 12 SCH |

The choice of specialization area is limited to those subjects generally taught at the middle or secondary school level.
*The courses for other specialization areas are to be identified by the respective departments.

## COURSE DESCRIPTIONS

Special Education
SPED 552 INTRODUCTION TO EDUCATION OF EXCEPTIONAL CHILDREN (3) Provides an orientation to mental retardation, learning disabilities, and behavioral disorders. Attention to the legislation and litigation that impact special education. (Co-requisite: SPED 553.)

## SPED 553 PSYCHOLOGICAL FOUNDATIONS IN EDUCATION OF EXCEPTIONAL CHILDREN (3) A study

 of various human developments of children, both normal and exceptional; a study of influencing factors in peripheral nervous system deficits, central nervous system, and/or psycho-dynamic system (i.e. information processing deficits, central processing, maladaptive behavior, and disorders in negotiating motoric responses. (Co-requisite: SPED 552.)SPED 554 PROBLEMS IN EDUCATING EXCEPTIONAL CHILDREN (3) This course is designed to provide an in-depth study of problems and issues, both contemporary and historical, regarding the education of exceptional children. Students will acquire knowledge and comprehension competencies relative to national advocacy, legislation and litigation, parent education, and school/community resources.

SPED 556 PSYCHO-EDUCATION INTERVENTION (3) The course will provide instruction in the selection and use of various systems, methodologies and techniques in designing individualized educational interventions. Instructional materials and media available and relevant to special personnel will be reviewed.

SPED 557 IMPLEMENTATION AND EVALUATION: DIAGNOSTIC-PRESCRIPTIVE TEACHING (3) This course is one in the training sequence for the Generic Special Education certification. It is designed to provide directed experiences in implementation strategies and in assessing educational instructional interventions.

SPED 558 PRACTICUM IN EDUCATION (3) The purpose of this course is to provide a setting in which the trainee can demonstrate competencies in real life situations with exceptional children. The student will have opportunities to integrate theory and practice regarding observation, assessment and/or evaluation, and intervention techniques and strategies.

SPED 559 RESEARCH IN SPECIAL EDUCATION (3) Provides master level students the basic skills needed to review and conduct research in special education.

SPED 600 INDIVIDUAL PROJECT (3) Provides students with an opportunity to increase learning outcomes by participating in an independent project to apply and evaluate effective instructional practices.

## Reading Education

RDG 574 FUNDAMENTALS OF READING INSTRUCTION (3) Presents an overview of the basic concepts in reading, a survey of various programs in today schools, and an appraisal of materials to meet varying needs.

RDG 874 DIAGNOSTICS AND REMEDIAL READING INSTRUCTION (3) Presents a study of diagnostic procedures and techniques used in determining the nature and causes of reading difficulties and strategies for planning instruction to meet individual needs.

RDG 875 PRACTICUM IN READING I (3) Creates opportunities for observation and participation in a clinical program of reading. Includes diagnostic testing, remedial teaching and the compiling of clinical records. (Prerequisite: RDG 874 or advisor approval)

RDG 888 PRACTICUM IN READING II (3) Creates opportunities for observation and participation in a clinical program of reading. Includes diagnostic testing, remedial teaching, compiling clinical records, and parental involvement in the entire process. (Prerequisites: Advisor approval and RDG 874)

## M. Ed., Educational Administration

## GRADUATE PROGRAMS

The Master's Degree in Educational Administration and the Master's Degree in Educational Supervision are offered in the Department of Educational Leadership and Counseling.

The program prepares individuals who have a strong awareness of their responsibility to serve the public and to carry on educational programs that will be in keeping with the needs and interests of those they serve. Creating a cognizance for public relations and the need for communication with the community is an essential element in the program.

Prominence is given to helping potential administrators and supervisors to be humanistic in their approach to the solution of problems. Special attention is given to the decision-making process and stressing the worth of the individuals who make up student groups, teaching staffs, and school patrons.

Attention is given to developing educators who can provide a creative approach to educational problems. Proper use and delegation of authority and responsibility within a democratic society.

Further emphasis is placed on the development of professional educators who have a fundamental understanding of educational theory, educational research, educational philosophy and contemporary educational techniques and methods. Emphasis is placed on helping the student learn how to integrate these elements into a sound educational program. Effective leadership cannot be exercised without a thorough understanding of basic educational principles and knowledge of current educational trends.

In keeping with the thrust and setting of the University, great effort is made to prepare individuals who can be flexible and who can serve effectively all children in our society. Development of quality professional educators who are knowledgeable and who can provide creative leadership in the various areas of education is the fundamental goal of the Department.

## Mid-Management, Supervision, and the Superintendency Program

## REQUIREMENTS FOR CERTIFICATION

The Master of Education Degree and/or Professional Certification in the State of Texas are offered in the Department of Educational Leadership and Counseling.

1. Master's Degree and Certification in Professional Supervision
2. Master's Degree and Certification in Special Education Supervision
3. Master's Degree and Certification in Professional Mid-Management Administration
4. Temporary Assistant Principal Certificate
5. Temporary Mid-Management Administrator (Principal) Certificate
6. Professional Superintendent Certification
7. Temporary Superintendent Certification

## GENERAL REQUIREMENTS

In addition to meeting the Graduate School's requirements for admission, retention, examinations, candidacy and graduation as listed elsewhere, the student shall:

1. Submit an application, personal information, and recommendations on forms provided by the Graduate School.
2. Submit evidence of holding the Provisional Teacher Certificate and at least two years creditable classroom teaching experience for the administrator programs or three years for supervision.
3. Complete requirements of the Department Screening Committee as approved by the Graduate School.
4. File a degree and/or certificate plan with faculty advisor and with the Graduate School Office.

A Comprehensive Examination will be required of all students within six (6) hours of graduation. Eligibility to take the Comprehensive Examination, designed by the Educational Administration faculty, will be determined by the advisor and the Department Chair. Passing the Comprehensive Examination with a score of 75 is required for graduation and for approval to apply to take the ExCET.

## PROGRAM OBJECTIVES

The programs in educational administration and supervision are designed to develop competencies in the following:

- Principles of school law, school finance, business affairs negotiations, public relations and personnel administration;
- Problem-solving techniques and decision-making skills;
- Management of regular, vocational, special education, and compensatory programs;
- Administration of the curriculum development process and evaluation of personnel and program performance;
- Leadership characteristics and the ability to be change agents;
- Systems design and implementation;
- Application of knowledge from a broad interdisciplinary background;
- Application of research in educational administration;
- Human relations, group dynamics and communication skills, career growth and personal maintenance skills;
- Development and understanding of one's educational philosophy.


## Professional Supervisor Certificate

A. Bachelor's degree.
B. Master's degree and Certification in Professional Mid-Management Administration
C. Temporary Assistant Principal Certificate
D. Temporary Mid-Management Administrator (Principal) Certificate
E. Professional Superintendent Certification
F. Temporary Superintendent Certification B. Valid Texas teacher certificate, special education certificate, or vocational certificate which requires a bachelor's degree.
G. Three years of acceptable teaching experience.
H. Thirty (30) semester hour graduate program in supervision, which shall include:
(1) Nine (9) semester hours in leadership for instructional improvement;
(2) Twenty-one (21) semester hours in the resource area: intensive study of the context, methods, and techniques of instruction; organization of the instructional program; and the selection, development, and use of materials for instruction.
I. ExCET requirement: Supervisor (62).

## Professional Special Education Supervisor Certificate

A. Valid Texas teacher certificate with an endorsement or specialization in special education.
B. Master's degree in the field of education or a related field.
C. Valid Texas supervisor or administrator certificate.
D. Three years of acceptable teaching experience.
E. Prior service provision: Persons who were assigned full-time responsibility for the supervision of local special education programs for the three years immediately preceding the school year 1971-1972 may qualify for certification as special education supervisors if the following conditions are verified:
(1) Master's degree,
(2) Valid Texas special education certificate and/ or valid Texas administrator or supervisor certificate,
(3) Verification from a local superintendent on full-time special education supervisory responsibilities for the three years immediately preceding the school year 1971-1972.

## Professional Mid-Management Administrator Certificate

A. Master's degree
B. Valid Texas teacher certificate, special education certificate, or vocational certificate which requires a bachelor's degree.
C. Two years of acceptable classroom teaching experience.
D. Completion of a common core of courses to include:
(1) Fifteen (15) to eighteen (18) hours of graduate courses, open only to graduate students, designed to develop general administrative competencies in administrative theory and practice, curriculum, instructional supervision, school law, business management, and the administration of special and compensatory education;
(2) Nine (9) to twelve (12) semester hours of advanced credit earned after the baccalaureate degree in academic areas of study such as sociology, anthropology, psychology, business administration, economics, or computer science to provide breadth and understanding of the role of the professional administrator.
E. Completion of specialized school administrator preparation courses to include:
(1) Fifteen (15) to eighteen (18) semester hours of graduate credit in courses open only to graduate students in areas of competency designed either for the position of principal or central administrator;
(2) Each program for the preparation of the school principal shall include elements designed to provide competencies in the administration of special education, reading, career education, and vocational-technical education.
F. Completion of three to six semester hours of graduate credit in an approved administrative internship.
G. ExCET requirement: Mid-Management Administrator (63).

## Temporary Assistant Principal Certificate - Valid for five years (non-renewable)

A. Bachelor's degree
B. Valid Texas teacher certificate, special education certificate, or vocational certificate which requires a bachelor's degree.
C. Two years of acceptable classroom teaching experience.
D. At least twelve (12) semester credit hours of graduate work in the common administrative core required for the Professional Administrator Certificate.
E. Admission to the professional administrator program of the college or university recommending the applicant.
F. No ExCET test required.

## Temporary Mid-Management Administrator - (Principal) Certificate Valid for five years (non-renewable)

A. Master's degree
B. Valid Texas teacher certificate, special education certificate, or vocational certificate which requires a bachelor's degree.
C. Two years of acceptable classroom teaching experience.
D. At least twelve (12) graduate level semester hours of the common administrative core in courses designed to develop general administrative competencies.
E. Admission to the professional administrator program of the college or university recommending the applicant.
F. No ExCET test required.

## Professional Superintendent

A. Master's degree
B. Valid Texas certification as principal (prior to 1966 program) or mid-management administrator (1972 program).
C. Completion of common core of courses required for the Mid-Management Administrator Certificate.
D. Fifteen (15) additional semester hours of graduate level courses designed for the superintendency.
E. ExCET requirement: Superintendent (64).

## Temporary Superintendent Certificate - Valid for five years (non-renewable)

A. Valid Professional Mid-Management Administrator Certificate or valid Professional Principal Certificate.
B. Admission to the professional superintendent program of the college or university recommending the applicant.
C. No ExCET test required.

COURSE REQUIREMENTS - (All courses must be approved by Department)
CURRICULUM SUMMARY

1. Master's Degree and Certification in Educational Administration ..................................... 45 SCH
A. Administrative Area .......................................................................................................... 15 SCH
B. Academic Core ................................................................................................................... 9 SCH
C. Specialization Core ............................................................................................................ 9 SCH
D. Internship .......................................................................................................................... 3 SCH
E. Foundation Core .................................................................................................................. 9 SCH
2. Master's Degree and Certification in Educational Supervision
A. Instructional Leadership Area ..................................................................................... 9 SCH
B. Resource Area .................................................................................................................... 9 SCH
C. Electives ........................................................................................................................... 12 SCH
D. Master's Degree Requirements (Foundations) ................................................................... 12 SCH
3. Certification in Educational Administration (Must have Master's Degree)
A. Mid-Management
4. Administrative Core ................................................................................................. 15 SCH
5. Academic Core ......................................................................................................... 9 SCH
6. Specialization Core .................................................................................................... 9 SCH
7. Internship ................................................................................................................. 3 SCH
8. Certification in Educational Supervision (Must have Master's Degree)
A. Instructional Development Area ..................................................................................... 9 SCH
B. Resource Area ..................................................................................................................... 9 SCH
C. Resource Electives ........................................................................................................... 12 SCH

Course substitutions may be made with the approval of the Department Chairman and Dean of the Graduate School on forms provided by the Graduate School Office.

## COURSE DESCRIPTIONS

EDAS 532 THE SCHOOL AND PUBLIC RELATIONS (3) Policies, goals and organization of school public relations. Use of print, broadcast and audiovisual media. Involvement of pupils, teachers, staff, parents and public.

EDAS 534 THE PRINCIPAL AS A SUPERVISOR (3) Addresses the responsibilities in providing instructional leadership through observation, conferencing and staff development.

EDAS 537 PRINCIPLES OF EDUCATIONAL ADMINISTRATION (3) Theoretical and historical foundations of educational administration and its role and functions of leadership with special emphasis cry urban inner-city schools.

EDAS 541 ADMINISTRATION AND SUPERVISION OF CURRICULUM AND INSTRUCTION (3) A study of current trends in curriculum, the development and administration of programs. Special attention is given to curriculum which is deemed successful in urban and other specific settings.

EDAS 634 FINANCE AND ECONOMICS OF PUBLIC EDUCATION (3) Current local, state and federal funding patterns and emerging alternatives. Money as a factor in equal educational opportunity. Economic value of education in American Society.

EDAS 674 PRINCIPLES OF SUPERVISION (3) History, philosophy and purposes of school supervision. Roles, qualifications, skills, responsibilities and personal characteristics of supervisors. Strategies for curriculum development, program improvement and staff growth.

EDAS 675 TECHNIQUES OF SUPERVISION (3) Clinical situations in supervision. Assessment of teacher performance. Skills in interviewing, observing and group interaction. Facilitating staff, decision-making evaluating textbooks, materials and related research.

EDAS 676 SECONDARY SCHOOL ADMINISTRATION (3) Provides basic theoretical and practical knowledge and skills needed to be an effective middle or high school principal, with special emphasis on the urban school.

EDAS 677 ADMINISTRATION OF PUPIL PERSONNEL (3) Current practices and emerging issues in student accounting, testing, cumulative records, psychological services, guidance and/or counseling, follow-up study, health and welfare services.

EDAS 734 SUPERVISION OF ELEMENTARY SCHOOL CURRICULUM (3) Roles of the principal and general supervisor relative to curriculum, staffing, instruction of pre-kindergarten through elementary school. Discussion of programs for urban youths prior to public school experience and how these support each other.

EDAS 735 SUPERVISION OF THE HIGH SCHOOL CURRICULUM (3) Problems of departmentalized organization staffing, evaluation and materials for middle and high schools. Special emphasis on programs designed to help urban students graduate.

EDAS 736 SEMINAR IN SCHOOL PROBLEMS (3) Research, analysis and discussion of current issues and constraints in school administration.

EDAS 738 PROFESSIONAL NEGOTIATIONS (3) History and the current issues in collective bargaining in public education. Concepts used in the private and government sectors. Board, administrator and employee organization roles in negotiations. Constructive uses of the bargaining process, procedures, practices and products in education.

EDAS 770 THE SUPERINTENDENCY (3) Role, functions and characteristics of the school superintendent in urban America. Historical, legal, political and professional factors discussed.

EDAS 780 PROBLEMS IN EDUCATIONAL ADMINISTRATION (3) Identification of current problems facing school building and central administrators and the application of research and decision-making

## Health \& Kinesiology

## GRADUATE PROGRAM

The Department of Health and Kinesiology offers two graduate degrees, the Master of Science in Health and the Master of Science in Physical Education. The Department's objectives are to prepare professionals for:

1. Additional study toward the Ed.D./Ph.D. degree.
2. Service in urban, multicultural environments.
3. Managing wellness and health-related fitness programs.
4. Various coaching fields.

## ADMISSION CRITERIA

In additional to the general requirements for admission to the Graduate School (see general information section of this bulletin), applicants for admission to graduate standing in Health and Kinesiology are expected to present evidence of having completed the following:

1. A minimum of twenty-one (21) semester credit hours in undergraduate health or physical education and related courses approved by the Department.
2. A course in Anatomy and Physiology.

## DEGREE REQUIREMENTS <br> Master of Science in Health Education

1. Satisfactory performance on the qualifying examination, if applicable.
2. Completion of total of thirty-six (36) semester credit hours of graduate courses ( 500 level or above); a minimum of twenty-four (24) of these credit hours must be Health, six (6) semester credit hours of professional development, and six (6) semester credit hours in a resource area which may be taken in related disciplines, such as Public Affairs, Psychology, Sociology, Child Development, or Physical Education.
3. Successful completion of the Health Education Comprehensive Examination prior to graduation from the prescribed course of study.
4. Fulfillment of general requirements for graduation as outlined by the Graduate School. (See the general information section of this catalog).

> CURRICULUM SUMMARY
> Master of Science in Health Education
> Semester Credit Hours Required: 36



Taken in related area, such as Public Affairs, Psychology, Sociology, Child Development or Physical Education.

## COURSE DESCRIPTIONS

Health Education
HED 532 EPIDEMIOLOGY AND HUMAN ECOLOGY (3) Biologic relations between man and his environment and other organisms. Identification of factors influencing health and disease in a population. Epidemiological methods are examined for their technique of hypothesis formation, retrospective and prospective methods, and sampling problems.

HED 534 SURVEY OF HEALTH POLITICS (3) An in-depth analysis of laws pertaining to the health field; impact of relationships between and among patients, patients' families, providers, and other third party participants. Review of selected Texas statutes and health litigation will be conducted.

HED 535 SEMINAR IN RURAL AND INTERNATIONAL HEALTH (3) Presentation of topics related to rural and international health systems and impact of these systems on state, national, and international perspective.

HED 536 CONTEMPORARY URBAN HEALTH PROBLEMS (3) Review of factors relating to selected high morbidity and mortality in urban environments; distribution of urban health services; impact and utilization of urban wellness programs. Study of related problems faced by practicing health educators in a rapidly changing society and health care industry and service system.

HED 537 CONTEMPORARY RURAL HEALTH PROBLEMS (3) Review of factors relating to selected morbidity and mortality rates in rural health services; inaccessibility of certain rural groups to adequate medical care.

HED 538 HEALTH ISSUES OF AGING, DEATH AND DYING (3) Emphasis on social, economic, and physical problems of the aged and benefits of wellness programs. Community response to health problems of aging persons; issues related to death.

HED 570 ORGANIZATION AND ADMINISTRATION OF SCHOOL AND COMMUNITY HEALTH EDUCA-
TION (3) Principles and functions of organization and administration of school and community agencies. Designed to assist the health education specialist to develop and manage formalized school and community educational programs. Emphasis on wellness.

HED 571 HEALTH PROBLEMS OF ALCOHOL, NARCOTICS, AND TOBACCO (3) A comprehensive study of the harmful and beneficial effects of drugs, the physical effects, and socioeconomic-cultural impacts on the community, especially among youth. Legislative and educational efforts in this area.

HED 572 SAFETY EDUCATION (3) Advanced study of situations related to safety in contemporary society; focus on physical, biological, environmental, and cultural influences that impact safety of individuals in a global society.

HED 573 COMMUNITY HEALTH PROBLEMS (3) A study of community health programs; the need for them, the problems and issues involved, and an investigation of current attempts to solve community health problems.

HED 574 HEALTH MANPOWER ISSUES (3) Survey of health occupations by job function, geographic distribution, functional equivalencies, and available training. Issues development and trends in the discipline in schools, the community, industry, and institutional settings. Review of issues confronting health personnel.

HED 576 COUNTY AND MUNICIPAL HEALTH DEPARTMENTS (3) Examination of the functions of these governmental health programs through selected case studies.

HED 577 HUMAN SEXUALITY: ISSUES AND CONSIDERATIONS (3) Advanced study exploring biological, psychological, social/cultural dimensions of human sexuality as these are affected by human relations. Focuses on issues related to impact of sexuality on human well-being and quality of life.

HED 639 EVALUATION AND SELECTION OF HEALTH MATERIALS (3) Study of published reports and research in the areas of school and community health; application of techniques that integrate technology and print media in the creative design of informational and marketing materials for health care educational settings.

HED 831 RESEARCH PLANNING IN HEALTH AND PHYSICAL EDUCATION (3) Research design application to HPE. Provides a conceptual understanding of theories, tools, and processes involved in designing research studies.

## DEGREE REQUIREMENTS

## Master of Science in Human Performance

The overall requirements for the Master of Science in Physical Education are summarized below:

1. Satisfactory performance on the qualifying examination, if applicable.
2. Completion of total of thirty-six (36) semester credit hours of graduate courses ( 500 level or above), a minimum of twenty-four (24) of these credit hours must be in Physical Education, six (6) semester credit hours of professional development, and six (6) semester credit hours in a resource area which may be taken in related disciplines, such as Public Affairs, Psychology, Sociology, Child Development, or Health Education.
3. Successful completion of the Physical Education Comprehensive Examination prior to graduation from the prescribed course of study.
4. Fulfillment of general requirements for graduation as outlined by the Graduate School. (See the general information section of this catalog).

## CURRICULUM SUMMARY <br> Master of Science in Human Performance <br> Semester Credit Hours Required: 36

| 1. Specialization Area |  |  | 24 SCH |
| :---: | :---: | :---: | :---: |
| Required Cour | es. |  | 9 SCH |
| PE 531 (3) | PE 638 (3) | PE 831 (3) |  |
| Electives. |  |  | 15 SCH |
| PE 502 (3) | PE 534 (3) | PE 535 (3) |  |
| PE 536 (3) | PE 540 (3) | PE 576 (3) |  |
| PE 578 (3) | PE 631 (3) | PE 632 (3) |  |
| PE 633 (3) | 833 (3) |  |  |
| 2. Professional Develop | ment. |  | .. 6 SCH |
| EDCI 551 (3) | EDFD |  |  |
| EPSY 831 (3) | Requi | ctive (3) |  |
| 3. Resource Area ........ | .................. | ................. | .. 6 SCH |

## COURSE DESCRIPTIONS

Physical Education
PE 502 Strength and Fitness Development (3) Theoretical bases of strength development; recognition of the compounds of fitness; development and evaluation of fitness programs and types of strength.

PE 531 Advanced Theory and Practice (3) Includes a study of the technique and strategy used in various physical education and fitness programs and types of strength.

PE 534 Administration of Athletics (3) A study of administrative details, policies, and procedures related to high school and college athletics.

PE 535 Advanced Tests and Measurements (3) Consists of a study of various kinds of tests used in the field of physical education, includes practical experience in the administration of tests and the use of statistics to interpret test scores.

PE 536 Adapted Physical Education for the Atypical Individual (3) Considers the various types of physical activities and how they may be modified to meet the needs of individuals who are physically handicapped to the extent that they are unable to participate in the regular program of physical education activities.

PE 540 Sports Psychology (3) A study of motivation, communication, stress management, the use of natural energy, and other fascinating topics for enhancing coach-athlete relationships and for stimulating improved sports performers. Also, ACEP Certification.

PE 576 Motivational Aspects of Physical Activity (3) Analysis of factors influencing motivation of motor performance with emphasis on competition, audience effects, aggression, etc.

PE 578 Motor Development (3) Hereditary and environmental determinants of motor development; motor and behavior skills of infants, children, adolescents, and adults; changes in size, body build, fitness, and motor performances. Current theories of motor performances.

PE 631 Current Studies in the Administration of Health and Physical Education (3) Offered for administrative officers, as well as for teachers and directors of physical education. Included are studies of representative programs of physical education and a discussion of standards for evaluating such programs.

PE 632 Supervision of Health and Physical Education (3) A critical study of methods of instruction and procedures in supervision. Provision is made for the required observation of and participation in physical education classes.

PE 633 Curriculum Content and Methods in Health and Physical Education (3) An analysis of curriculum theory and design for physical education.

PE 638 Physiology of Exercise (3) A study of the effects of exercise on the organism.

PE 831 Research Planning in Health, Physical Education, and Recreation (3) Research design applicable to HPE. Provides a conceptual understanding of theories, tools and processes involved in designing research studies.

PE 833 Sports Management and Marketing (3) Presentation of cognitive data and experiences in relation to sports and athletic marketing/management. The problem solving approach will be used as the primary technique in methodology in the solution of marketing/management problems.


## COLLEGE OF PHARMACY <br> AND <br> HEALTH SCIENCES



# COLLEGE OF PHARMACY AND HEALTH SCIENCES 

DOCTOR OF PHARMACY POST BACCALAUREATE

The College of Pharmacy and Health Sciences at Texas Southern University offers a post-baccalaureate curriculum leading to the Doctor of Pharmacy (Pharm.D.) Degree, in three separate dynamic educational environments. The environments are on campus, off-campus, on-line. The primary objective of the Doctor of Pharmacy program is to educate and train current practicing pharmacists in Texas who desire to enhance their knowledge, skills, and credentials required for expanded clinical practices.

The practice of pharmacy is undergoing rapid change and is moving from a primarily product-focused role to a clinical patient-focused role. Graduates of this program will have the necessary skills and knowledge to provide pharmaceutical care in various practice settings. They will gain greater scope and depth of knowledge in clinical therapeutics, drug information and research designs, and clinical pharmacokinetics as they relate to patient care. More specifically, the graduates of this program will demonstrate competency in terms of their ability to:

- provide drug information and consultation on problems of drug use and abuse in the urban community.
- serve as an authoritative information source on drugs and their utilization in therapy of patients.
- apply knowledge of therapeutics, disease processes and the principles of clinical pharmacokinetics to the better management of acute and chronically ill patients.


## PROGRAM AVAILABILITY

There exist three avenues for pharmacists to obtain the post baccalaureate Pharm.D. degree at Texas Southern University. There is the on-campus, full-time/part-time option, in which students attend classes for five semesters. There is an external off-campus, part-time option, in which students attend classes at the University Center, which is an alliance of six universities, the North Harris Montgomery Community College District, and the private sector. The third option is an on-line internet based program, called TxPharm., offered as a joint venture by the four colleges of Pharmacy in Texas.

## ADMISSION REQUIREMENTS

Students will be selected for the program after evaluation of professional motivation, maturity, and commitment to professional practice and total academic and intellectual background. For transfer students and pharmacists resuming their education, the first year of preparation must be comparable to the current Texas Southern University professional degree pharmacy program. These students may be required to take prerequisite courses prior to entrance into the Doctor of Pharmacy degree program if deemed necessary by the faculty.

Reference will be given to qualified Texas residents. Other requirements are as follows:

- baccalaureate degree from a College of Pharmacy accredited by the American Council on Pharmaceutical Education
- a cumulative grade point average of not less than 3.00 on a 4.00 scale in professional curriculum
- license to practice pharmacy or eligibility for licensure


## ADMISSION PROCEDURES

The Texas Southern University Application to the Doctor of Pharmacy Program personal data forms should be accompanied by:

- A $\$ 50.00$ non-refundable application fee payable by cashier's check or money order to Texas Southern University.
- For international students, an additional $\$ 75.00$ handling and processing fee;
- Two (2) copies of ALL College transcripts, undergraduate and post-baccalaureate.;
- A typewritten "Letter of Interest" stating career goals, career interest and reasons for seeking the Doctor of Pharmacy degree (limit one (1) page, double spacing);
- Three (3) letters of recommendation, one from a pharmacy practitioner (preferably) and two from previous pharmacy faculty or academic advisor.

Applicants will likely be required to appear before the Pharm.D. Admissions Committee or its designated representatives for a "personal interview" prior to admission. Applicants will not be considered for admission until the file folder is completed.

## APPLICATION DEADLINE DATES

| Fall Semester | June $30^{\text {th }}$ |
| :--- | :--- |
| Spring Semester | October 1t |

## REQUIREMENTS FOR THE PHARM.D. DEGREE

The curriculum requires a minimum of 67 semester hours (21-24 months) of full-time study. It is composed of four general areas:

| Didactic Course Work | 27 SH |
| :--- | ---: |
| Experiential Training | 30 SH |
| Seminars in Clinical Pharmacy | 4 SH |
| Investigational Research Project | 6 SH |

Students must pass all required courses and maintain an overall "B" average. A student who fails to meet the minimum standards may be required to repeat specific course work or may be required to withdraw from the program. Decisions pertaining to these matters will be made by the Program's Performance Review Committee.

## OTHER DEGREE REQUIREMENTS

Candidates for the Doctor of Pharmacy Degree will be advised by their major professors, who will select areas of study to meet the candidates' individual needs. As partial fulfillment of the requirements for the degree, all candidates will:

- participate in minor teaching activities of the baccalaureate program (i.e. mini-lectures on sites, conducting clinical conferences).
- successfully pass written and oral comprehensive examinations with special emphasis in clinical application.
- under the guidance of major professor and Doctoral Advisory Committee, prepare a protocol, conduct the study, make verbal presentation and submit, in a form suitable for publication the results of a clinically-oriented research project.
- submit recommendation for graduation from the faculty of the College of Pharmacy and Health Sciences


## CURRICULUM SUMMARY <br> Pharm.D. Program - Post Baccalaureate

| Fall Semester (First Year) | ........................................................................................... 15 SCH |
| :---: | :--- |
| Pharm $931(3$ SH) | Pharm $932(3 \mathrm{SH})$ |
| Pharm $940(4 \mathrm{SH})$ | Pharm $945(2 \mathrm{SH})$ |
| PAS $943(3 \mathrm{SH})$ |  |


| Spring Semester (First Year) |  | 15 SCH |
| :---: | :---: | :---: |
| Pharm 911 (1 SH) | Pharm 930 (4 SH) |  |
| Pharm 933 (3 SH) | Pharm 941 (4 SH) |  |
| PAS 933 (3 SH) |  |  |
| Summer Semester (First Year) ... |  | 9 SCH |
| Pharm 912 (1 SH) | Pharm 942-950 (4 SH) |  |
| Pharm 981 (4 SH) |  |  |
| Fall Semester (Second Year). |  | 16 SCH |
| Pharm 900 (3 SH) | Pharm 913 (1 SH) |  |
| Pharm 942-950 (4 SH) Pharn | Pharm 942-950 (4 SH) |  |
| Pharm 981 (4 SH) |  |  |
| Spring Semester (Second Year) |  | 12 SCH |
| Pharm 901 (3 SH) | Pharm 914 (1 SH) |  |
| Pharm 942-950 (4 SH) |  |  |
| Pharm 942-950 (4 SH) |  |  |

## COURSE DESCRIPTIONS

PHARM 900 INVESTIGATION RESEARCH PROJECT I (3) A course designed to allow independent research. Projects are selected by the students and assigned by the assigned major professor. Results must be written in a form suitable for publication.

PHARM 901 INVESTIGATIONAL RESEARCH PROJECT 11 (3) A course designed to allow independent research Projects are selected by the students and assigned by the assigned major professor. Results must be written in a form suitable for publication.

PHARM 911 SEMINAR - CLINICAL PHARMACY I (1)Reports and discussion of relevant research topics and literature in the pharmaceutical sciences. Student presentations required.

PHARM 912 SEMINAR - CLINICAL PHARMACY II (1) A course designed to allow independent research student presentations required.

PHARM 913 SEMINAR - CLINICAL PHARMACY III (1) A course designed to allow independent research. Student presentations required.

PHARM 914 SEMINAR - CLINICAL PHARMACY IV (1) Reports and discussion of relevant research topics and literature in the pharmaceutical sciences. Student presentations required.

PHARM 930 CLINICAL PHARMACOKINETICS (4) The application of pharmacokinetics principles to be utilized in the selection, dosing, dosage adjustments and evaluation of drug therapy of patients.

PHARM 931 CLINICAL DRUG LITERATURE EVALUATION (3) Study of basic statistical analysis, study design, and literature assessment. Emphasis is placed upon comparative evaluation with two or more studies on the same topic.

PHARM 932 APPLIED BIOSTATISTICS (3) Statistical applications to clinical studies with special consideration of standard errors, chi-square, tests of significance, and correlations related to research and design. (2 hours of lecture and laboratory per week)

PHARM 933 PHYSICAL ASSESSMENT (3)A course taught in both classroom and clinical setting which emphasizes normal history taking, patient interview and physical assessment techniques as they relate to patient monitoring.

PHARM 940 CLINICAL THERAPEUTICS I (4) A Series of organized lecture presentations (competency-based) stressing rational drug therapy in acute and chronic disease states.

PHARM 941 CLINICAL THERAPEUTICS II (4) A series of organized lecture presentations (competency-based) stressing rational drug therapy in acute and chronic disease states.

PHARM 942 CLINICAL PHARMACOKINETICS (4) The application of pharmacokinetic principles to be utilized in the selection, dosing; dosage adjustments and evaluation of drug therapy of patients.

## EXPERIENTIAL TRAINING

All practice experiences are designed to expose the student to pharmaceutical care practices that stress direct patient care, development and review of therapeutic plans, monitoring for appropriate outcomes while stressing the role of the pharmacist in education of patients and health care other professionals.

PHARM 943 GERIATRIC PRACTICE (4) Provision of pharmaceutical care to patients admitted to geriatric services in ambulatory as well as institutional settings such as hospitals and long term care facilities.

PHARM 944 AMBULATORY CARE PRACTICE (4) Provision of pharmaceutical care to patients in the ambulatory setting with emphasis of the pharmacist as a primary care provider.

PHARM 945 DRUG INFORMATION PRACTICE (4) Provision of drug information and consultation services to health services, health care professionals and patients through a formal drug information center.

PHARM 946 ONCOLOGY PRACTICE (4) Provision of Pharmaceutical care to hospitalized and/or ambulatory oncology patients.

PHARM 947 PSYCHIATRY PRACTICE (4) Provision of Pharmaceutical care to hospitalized and/or ambulatory psychiatry patients

PHARM 950 PEDIATRICS PRACTICE (4) Provision of Pharmaceutical care to pediatric and neonatal patients in institutionalized and/or ambulatory settings.

PHARM 981 GENERAL MEDICINE (4) Provision of pharmaceutical care to internal medicine, general medicine or family medicine patients in institutionalized and ambulatory practice areas.

PAS 933 ADVANCED CHEMOTHERAPEUTICS (4) Advanced study of biochemical, cellular, and molecular mechanics underlying the action of drugs, immunomodulators, and other agents used to treat infections and neoplastic diseases

PAS 943 ADVANCED PHARMACOLOGY (3) This course is designed to present in-depth and up-to-date information on pharmacology of agents used in the treatment of cardiovascular, endocrine and CNS diseases. Emphasis will be placed on discussing pharmacology agents used in the treatment of hypertension, CHD, M.I., Cardiac failure, arrhythmias, endocrine abnormalities and CNS disease

## Electives

Phycho Social Stress in Health Care
Techniques in Sterile Products
Immunology
Analytical Toxicology
Advanced Chemotherapeutics
Computer Technology
Intermediary and Cellular Metabolism
General Virology
Drug Abuse Education

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