# TEXAS SOUTHERN UNIVERSITY GRADUATE CATALOG 

## 2008-2010

## "World Leadership for Today" www.TSU.edu

Pharmacy Public Affairs Liberal Arts Science and Technology Communications Education Business Law
Texas Southern University
Opening doors to opportunity and academic excellence for all students The Impetus of World Leadership is Learning

Texas Southern University's mission dedicates the University "to providing quality instruction, scholarly research, and socially responsible public service." The Graduate Schools support the University's mission by training the next generation of professional practitioners and research scholars. The University offers 27 masters programs, three doctor of education programs, and four Ph.D. programs. The Graduate Faculty focuses both on education and scholarly research. Students have the opportunity to work with world renowned scholars as they progress in their training.

Our programs are designed to focus on the needs of students. Many of our programs accommodate working professionals with evening classes and flexible schedules. Call our office for general information on applying and be sure to speak with advisors in the program of your interest for detailed information.

Gregory H. Maddox, Ph.D.
Professor of History
Interim Dean of the Graduate School

## General Information Bulletin GUIDE TO GRADUATE STUDIES

GRADUATE SCHOOL (713-313-7234)
TAVI S SMI LEY SCHOOL OF COMMUNICATION (713-313-77)

## COLLEGE OF LI BERAL ARTS \& BEHAVI ORAL SCI ENCES

Communications (713-313-7360)
English, Foreign Languages \& Reading (713-313-7214)
Fine Arts (713-313-7337)
History, Geography, and Economics (713-313-7794)
Human Services and Consumer Sciences (713-313-7229)
Psychology (713-313-7344)
Sociology (713-313-7250)

## COLLEGE OF EDUCATION

Master's Degree and/or Certification Programs
Counseling (713-313-7389)
Curriculum and Instruction (713-313-7267)
Secondary Education (713-313-7267)
Educational Administration (713-313-7255)
Health and Kinesiology (713-313-7087)
Doctor of Education (Ed.D.) Programs
Ed.D., Counselor Education (713-313-7389)
Ed.D., Curriculum \& Instruction (713-313-7267)
Ed.D., Educational Administration (713-313-7255)
J ESSE H. JONES SCHOOL OF BUSI NESS
M.B.A., General Business (713-313-7309)

MIS (713-313-7309)
COLLEGE OF PHARMACY \& HEALTH SCI ENCES
Pharm.D. - Post Baccalaureate (713-313-7164)
Master of Science, Health Care Administration (713-313-4298)
Ph.D., Pharmaceutical Science (713-313-1180)
BARBARA JORDAN-MI CKEY LELAND SCHOOL OF PUBLIC AFFAI RS
Master of Public Administration (713-313-7311)
Master of Urban Planning \& Environmental Policy
Ph.D., UPEP
COLLEGE OF SCI ENCE AND TECHNOLOGY
Master's and Doctor of Philosophy Degree Programs
Biology (713-313-7005)
Chemistry (713-313-7003)
Computer Science (713-313-7991)
Environmental Toxicology (Ph.D.) (713-313-4259)
Environmental Toxicology (M.S.) (713-313-4259)
Mathematics (713-313-7002)
Industrial Technology (713-313-7009)
Transportation Planning \& Management (713-313-1841)

> The Graduate School Hannah Hall Room 201
> $713-313-7234$
> (Fax) $713-313-1876$

# TEXAS SOUTHERN UNIVERSITY <br> The Graduate School <br> 201 Hannah Hall <br> Houston, Texas 77004 

# Graduate School Bulletin 2008-2010 

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| :--- | :--- |
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| Gary Bledsoe | Austin, Texas |
| Samuel Bryant | Austin, Texas |
| Richard C. Holland | Plano, Texas |
| Honorable Richard Knight, Jr. | Dallas, Texas |
| Curtistene McCowan | De Soto, Texas |
| Tracye McDaniel | Houston, Texas |
| Larry Taylor, Student Regent | Ferris, Texas |

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| James M. Douglas | Interim Provost |
| Billy R. Owens | Interim Sr. Vice President of Business \& Finance |
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| Willie H. Marshall | Associate Provost for Student Services |
| Alex Swan | Faculty Assembly/Senate |
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| Janis J. Newman | Chief of Staff |
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## OFFI CERS OF I NSTRUCTI ONAL ADMI NI STRATI ON

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| Jay R. Cummings | Dean, College of Education |
| Merline Pitre | Dean, College of Liberal Arts \& Behavioral Sciences |
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| Theophilus Harrington | Dean, Barbara Jordan-Mickey Leland School of Public Affairs |
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| John Sapp | Interim Dean, College of Science and Technology |
| James Ward | Dean, Tavis Smily School of Communication |
| Obidike Kamau | Director of Libraries |
| Gregory H. Maddox | Interim Dean, The Graduate School |
| Marilyn Square | University Registrar |

The Graduate Office maintains the official record for each graduate student and serves as the administrative body and source of information for graduate education.

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.

## For curriculum changes to this catalog and general announcements relative to the Graduate School, please visit the Texas Southern University website at: http:/ / www.tsu.edu/ academics/ graduate.

## MISSI ON OF TEXAS SOUTHERN UNIVERSITY

Texas Southern University is a comprehensive, historically Black institution of higher education dedicated to providing quality instruction, scholarly research, and socially responsible public service. Consistent with its statutory designations as both a statewide general purpose and a special purpose institution for urban programming, the University offers bachelors, masters, doctoral, and professional degrees. Committed to providing access and opportunity, the University enrolls an academically and ethnically diverse student body. Through their teaching and research, the distinguished faculty members produce competent graduates who are poised to make positive contributions to humanity.

VISION STATEMENT

Texas Southern University will achieve preeminence as a comprehensive urban institution of higher learning, preparing students for leadership roles in the communities of our state, nation, and world.

CORE VALUES

Texas Southern University values:

- Integrity
- Excellence and innovation
- Academic freedom
- Equality and diversity
- Compassion


## ORGANI ZATI ON FOR I NSTRUCTI ON

The University is organized for instruction into nine colleges and schools. These instructional
units are as follows:

The Graduate School The College of Liberal Arts and Behavioral Sciences<br>The College of Education<br>The Jesse H. Jones School of Business<br>The Thurgood Marshall School of Law<br>The College of Pharmacy and Health Sciences<br>The Barbara J ordan-Mickey Leland School of Public Affairs<br>The College of Science and Technology<br>The Tavis Smiley School of Communication<br>The College of Continuing Education

## ACCREDITED PROGRAMS

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.
The College of Education is accredited by the Texas Education Agency, the Texas Workforce Commission, and the Texas Association of Colleges. It also holds membership in the National Council for Accreditation for Teacher Education and is a member of the Association of Colleges for Teacher Education. 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.

In the College of Liberal Arts and Behavioral Sciences, the Social Work Program is accredited by the Council of Social Work Education, and the Dietetics Program is accredited by the American Dietetics Association. Four of the programs in the College of Science and Technology hold special certifications and/or accreditation: the Chemistry Program is certified by the American Chemical Society; the Electronic Engineering Technology Program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET); and the Airway Science Programs are accredited by the National Association of Industrial Technology (NAIT).

The Jesse H. Jones School of Business is accredited by the Association to Advance Collegiate Schools of Business (AASCB International).

## THE ROBERT JAMES TERRY LI BRARY

The combined facilities of the Robert James Terry Library at Texas Southern University support the curricula 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 more than 457,000 volumes and 363,000 microfilms, are housed in a centrally located facility, which provides seating for more than 1,000 patrons. To augment study, a number of private 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 feature more than 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 United States, using the computer and telecommunications facilities of the Online 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.

Applicable equipment complies 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, the Mickey Leland Archives and the University Archives.

## THE GRADUATE SCHOOL

## GOALS AND OBJ ECTI VES

The Graduate School's major goal is to provide an environment that supports the enhancement of research, teaching, and other scholarly pursuits for students seeking advanced degrees in specialized academic disciplines. Through graduate study, high-level scholarship, diligence, and excellence are encouraged and 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 and can provide leadership and expertise to meet the needs and demands of an ever-evolving, diverse society.

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

1. Provide advanced programs of study in specialized academic disciplines.
2. Provide students with knowledge of the concepts and techniques for scholarly research.
3. Teach students to anticipate consequences and evaluate the validity of assumptions.
4. Prepare students to synthesize the essence of knowledge drawn from several related courses in an academic discipline.
5. Train students in the techniques of problem solving through the use of systematic analysis.
6. Prepare students to become creative contributors to the advancement of knowledge and to the wellbeing 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.

## ORGANI ZATI ON

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. The Dean of the Graduate School takes final action on applications for admission.

## 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 members are approved every three years and special faculty must be approved each year. Approximately $85 \%$ of the graduate faculty members 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 states across the country. A relatively large corps of international students also matriculates in the Graduate School.


#### Abstract

RESEARCH The graduate faculty is involved in myriad research projects funded by federal, state, and private grants. Significant research centers on urban and instructional issues. These research activities have resulted in publications in various scholarly journals and books. 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, and Master of Science. 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, Pharmaceutical Sciences, and Urban Planning and Environmental Policy.

## PROGRAMS OF STUDY

Graduate students can select majors in the following academic fields: in Liberal Arts and Behavioral Sciences, masters degrees are offered in music, English, history, human services and consumer sciences, psychology, and sociology; in Communications, a masters degree is offered in speech communication, journalism, and telecommunications; in Education, masters degrees are offered in educational administration, curriculum and instruction, secondary education, counseling, health and human performance and doctoral degrees in curriculum and instruction, counselor education, and educational administration; in Business, masters degrees offered in management information systems and general business; in Science and

Technology, masters degrees are offered in biology, chemistry, mathematics, environmental toxicology, industrial technology and transportation and a Ph.D. in environmental toxicology; in Pharmacy, masters degrees are offered in health care administration, pharmacogenomics and pharmaceutics and a Ph.D. in pharmaceutics; in Public Administration masters degrees are offered in public administration, administration of justice, and urban planning and environmental policy and a Ph.D. in urban planning and environmental policy.

The master's degree may be earned by 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 mandatory. The student should consult the department of his or her major, and the student should indicate which plan he or she will follow 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.

## ADMISSION REQUIREMENTS

## Admissions Program Administration

Applications for admission to all graduate degree programs of the University are processed through the Graduate School. The Graduate Admissions Committee within the major department reviews all applications, 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 can obtain an application online at http://www.tsu.edu/academics/graduate/admissions/index.asp, or write directly to: The Office of the Graduate School, Texas Southern University, 3100 Cleburne St., Houston, Texas 77004.

## Procedures and Regulations

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 550 on the paper based test, 213 on the computer based test, or 79 on the internet based test (IBT) 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 may also be admitted on a conditional basis (e.g., non-degree seeking students); these conditions will be outlined in the applicant's respective admissions letter. It is the responsibility of the applicant to notify the Graduate School when he or she has fulfilled the conditions stated in the admissions letter.

## Seniors in Graduate Courses

A senior at Texas Southern University who demonstrates superior scholastic ability and needs fewer than 10 semester hours to complete the bachelor's degree may be permitted to take
graduate courses. The head of the major department, the dean of the undergraduate college, and the Dean of the Graduate School must approve requests from seniors for permission to take graduate courses.

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 fulfillment of the residence requirement for the master's degree. No more than six (6) semester hours of graduate course work may be taken by seniors.

## Re-admission

A student who discontinues matriculation in the Graduate School for one academic year 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 readmission application.

## CRITERIA FOR ADMISSION

## 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 $2.50(C+)$ 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, or GMAT, which will be used in conjunction with other admission factors.
5. A score of at least 500 (550) on the paper based test, 173 (213) on the computer based test, or 61 (79) on the internet based test (IBT) on the TOEFL, if the applicant is an international student.
6. An Analytical Writing score of 3.5 or above on GRE or GMAT exam to fulfill English proficiency requirement.

## 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 appropriate department and the Dean of the Graduate School.

## Responsibility for Admission

The appropriate department will make the recommendation for admission. Recommendations for admissions 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 seek to obtain the doctorate degree at Texas Southern University will be subject to the decision of the appropriate department, the appropriate Dean, the Dean of the Graduate School, and the Provost and Senior Vice President for Academic Affairs.

## 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.

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 includes 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.

## Residency 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. Approved courses must not exceed the six- (6) year time limit when student applies for graduation.

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

No more than six semester hours of approved graduate workshop credit may count toward the semester hours required for a degree or professional certificate.

## EXAMI NATI ONS 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 Analytical Writing Section of the GRE with a score of 3.5 or above (beginning spring 2006) or English 501 . The English proficiency requirement must be successfully completed by end of the first semester of the student's enrollment in the Graduate School.

## 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.

## TI ME 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 thirty (30) to thirty-six (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 must have been taken within a seven-year period from the date of initial admission to the Graduate School. 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.

## EXAMI NATI ONS FOR DOCTORAL DEGREE STUDENTS

## Comprehensive Examination

The candidate, toward the end of the course work for the program, takes a comprehensive examination. 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 agree on an "honors" score. If one reader gives a "fail" rating and the other gives a "pass" rating, then a third reader will be appointed. The student must take all sections 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 wherein the petitioner will endeavor to improve his/her chances for satisfactorily completing the examination failed. The chairperson of the student's doctoral committee, the department head, the Dean of the relevant college or school, and the Dean of the Graduate School must approve the petition.

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 relevant doctoral program.

## Dissertation Examination

The Dean of the Graduate School will appoint the Dissertation Committee upon the recommendation of the department and will include an external 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. 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 the relevant cataloguing organization

## TRANSFER OF CREDIT

The following regulation governs acceptance of transfer credits:
To transfer doctoral credits from another university to Texas Southern University, a statement and official transcript must be submitted to the Texas Southern

University Graduate School Office by the Graduate Dean, Registrar or Department Head at the institution wherein the credits are being transferred, indicating that the credits were earned in a doctoral program of study at that institution. No more than 15 semester hours of "B" (3.0) grade or better may be transferred.

## TIME LIMIT FOR THE DOCTOR OF EDUCATI ON DEGREE

After being admitted to a program leading to the Doctor of Education degree, a student will be allowed seven calendar years wherein 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 performed 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 count toward the satisfaction of doctoral degree requirements.

## TIME LIMIT FOR THE DOCTOR OF PHI LOSOPHY DEGREE

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

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

## ACADEMI C STANDARDS FOR ALL GRADUATE STUDENTS

## Scholastic Dishonesty

Students must maintain a high standard of honesty in their academic work. They should avoid all forms of academic dishonesty, especially the following:
a. Plagiarism. The appropriation of passages, either word for word (or in substance) from the writing of another and the incorporation of these as one's own written work offered for credit.
b. Collusion. Working with another person in the preparation of notes, themes, reports, or other written work offered for credit unless such collaboration is specially approved in advance by the instructor.
c. Cheating on an Examination or Quiz. Giving or receiving, offering or soliciting information, or using prepared material in an examination or testing situation. On examinations and quizzes, students are expected (a) to remain in the examination room until the examination is finished, (b) to refrain from talking, and (c) to refrain from bringing notes and books into the examination room.
d. Impersonation. Allowing another person to attend classes, take examinations or to do graded assignments for an enrolled student under his or her name is strictly forbidden.

A violator of any of the above offenses will incur severe disciplinary action ranging from suspension to expulsion from the University. Specific guidelines will be administered by each dean.

## STANDARD OF WORK

No more than six (6) semester hours of "C" work will be accepted toward the completion of the minimum semester hours of required courses in the master's or doctoral curriculum wherein a student's program of study has been approved. A grade of "D" or "F" is not acceptable toward 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 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 will be disqualified as a degree-seeking student and will 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 wherein 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 course work for the degree must be 500 level or above. No credit below the 500 level is acceptable for doctoral degrees.

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, is given in the departmental section of this bulletin.

## Grading

As of fall 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 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 midterm.

## 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 fourteen (14) days after all final examinations have been completed.

## I ncompletes

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 Course 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 course load during a six-week summer term is six (6) semester hours. Those students who hold graduate assistantships, are employed either full or part-time, or have extended responsibilities in the home or community may be restricted to a course load of no more than nine semester hours per semester.

## 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.

## Changes in Program

Changes from one program to another (including changes from one degree to another) 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.

## APPLI CATI ON FOR GRADUATI ON

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 (6) 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.

## 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 (3) semester hours during each semester or summer session in which the study or research occurs.

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

## FEES AND EXPENSES

## Resident Status

Students enrolled at the University can be classified as resident, nonresident, or foreign. All students attending Texas Southern University who are nonresidents 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. Nonresidents are persons residing in the state of Texas less than twelve (12) months immediately preceding their initial registration.

A request for a change of residency for tuition purposes should be made as soon as the student has met the requirements for residency change, but no later than the fourth ( $\left.4^{\text {th }}\right)$ class day for a summer session or the twelfth $\left(12^{\text {th }}\right)$ 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, second floor, Bell Building.

Texas Legislature-enacted statutes and Texas Higher Education Coordinating Board rules and regulations govern determination of residency classification for tuition purposes. These regulations may be reviewed in the Robert J. Terry University Library in the Reserved Area.

## Required Residency Documentation

The Texas Higher Education Coordinating Board requires that Texas Southern University document each student's residency. In order to apply for Texas residency status for tuition purposes, one must be either a U.S. citizen or permanent resident. The following documents indicating that the student has been living in the state of Texas for twelve (12) continuous months prior to registration may be required:

- Proof of property ownership (copy of deed)
- Permanent driver's license (at least one year old)
- Employer statement of date of employment (at least one year old)
- Lease agreement which includes student's name (at least one year old)
- Utility bill showing both student's name and address (at least one year old)
- Combination of last two year's income tax returns
- Resident Alien card (if not a citizen of the United States)
- Marriage license, birth records of child(ren)
- Statements from parents or guardian(s) 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 application.

If there is a question of a student's legal residence status under state law and university rules, it is the duty of the student to obtain an opinion from the Student Resident Status Advisor prior to registration. Any attempt on the part of the nonresident to evade the nonresident fee will be taken seriously and may lead to expulsion.

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

## TUITION AND ASSOCIATED FEES

The University reserves the right to adjust fees without prior notice. Tuition and regular fees paid by all students enrolled for fifteen (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. Major credit cards are also accepted when payments are being made. Post-dated checks will not be accepted. There will be a service charge for checks returned for any reason. Temporary checks are unacceptable.

Tuition. In all colleges and schools of the University, with the exception of 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 no less than $\$ 100.00$ per semester and $\$ 50.00$ for each six-week term. A nonresident or foreign student is required to pay tuition per semester hour. Information on
specific rates may be secured from the University Comptroller.
Designated Tuition. A Building Use Fee of a prorated amount per semester hour is charged to all students. This fee benefits construction, equipment, repair, and renovation of buildings and facilities.

Student Service Fee. The Student Service Fee benefits specific 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.

Students enrolled for twelve (12) or more credit hours both semesters of a school year are entitled to receive one copy of the University Annual. Students enrolled full-time for only one semester may also receive the Annual by paying an additional fee. No portion of this fee will be refunded.

Student Center 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 nonrefundable.

International Education Fee. The International Education Fee is used to assist students participating in international student exchange or study programs, in accordance with guidelines jointly developed by the student governing body and administration. This fee is nonrefundable.

Recreational Facility Fee. The Recreational Facility Fee is used for constructing, operating, maintaining and equipping the recreational facility and program. This fee is nonrefundable.

Medical Services Fee. The Medical Services Fee is used for operating, maintaining, improving, and equipping the medical services facility, acquiring and constructing additions to the medical services facility, and providing medical services to students. This fee is nonrefundable.

Computer Services Fee. A nonrefundable fee is assessed per semester to all students enrolled at the University to help support the provision of computer services to students.

Late Registration Fee. Failure to complete registration on the date specified, but before the absolute deadline, will result in a late fee assessment. This fee is nonrefundable.

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 for damage to property in any university library, laboratory, or other facility. This deposit, less 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 (4) years from the date of last attendance at the University, the deposit 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 past and future deposits.

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

1. Full payment of tuition and fees before the twentieth $\left(20^{\text {th }}\right)$ day of class or
2. One-half payment of tuition and fees before the twentieth day of class, one-fourth by the start of the sixth $\left(6^{\text {th }}\right)$ week, and one-fourth by the start of the eleventh ( $11^{\text {th }}$ ) week.

Students electing to pay their tuition and fees on the installment plan will be assessed a handling fee for the three-payment plan. This fee is nonrefundable.

The Governing Board may assess and collect incidental fees from the students utilizing the payment alternative and from students delinquent in payments.

A student who fails to make full payment, or a first installment payment, of tuition and fees, including any incidental fees, by the due date may be barred from classes until full payment is received. A student who fails to make full payment prior to the end of the semester may not receive credit for the work completed that semester. University records may be adjusted to reflect the student's failure to properly enroll for that semester.

Late Payment Fee. A student who fails to make payment of tuition and fees by the twelfth $\left(12^{\text {th }}\right)$ class day, by either method listed above, will be assessed a late payment fee.

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

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

Readmission Fee. Students who are readmitted to the University are required to pay a readmission fee that is used for processing their applications.

Transcript Fee. Copies of transcripts, both undergraduate and graduate, may be obtained for a fee. Students wishing to obtain copies of their transcripts must pay for the copies requested in the Bursar's Office and obtain a "clearance" in the Comptroller's Office before submitting their requests in the Office of the University Registrar. Transcripts will not be issued if persons initiating requests owe bills at the University.

Graduation Fees. Graduation fees are due and payable at the time of application for graduation. These fees do not include cap and gown rental. 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.

|  | Master's, <br> Thesis | Master's, <br> Non- <br> Thesis | Doctoral |
| :--- | ---: | :--- | :--- |
| Microfilm | N/A | N/A | $\$ 50.00$ |
| Binding Fee | $\$ \quad 15.00$ | N/A | $\$ 49.50$ |
|  <br> Handling | N/A | N/A | $\$ 14.00$ |


| Diploma Fee | $\$$ | 15.00 | $\$ 15.00$ | $\$ 16.50$ |
| :--- | :--- | :--- | :--- | :--- |
| Hood | $\$$ | 30.00 | $\$ 30.00$ | $\$ 130.00$ |

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

1. All records are not on file in the University Registrar's Office.
2. Bills have not been cleared (academic or financial).
3. Transcript fee has not been paid.

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 Services 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.

Parking Fee. Students who park on the campus must pay for parking decals to attach to their vehicles for designated student lots. This fee is assessed on a semester or term basis.

Other Fee(s). Other fees, not specified in this section, may be charged by colleges, schools, departments, or other offices at the University. Students will be apprised of these fees and their designated purposes at the time that they are incurred.

## REGULATI ONS GOVERNI NG 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 | No refund |

For students who officially withdraw from the University during a summer term, refunds for courses are calculated as follows:

| Prior to the first day | $100 \%$ |
| :--- | :---: |
| During the first, second, or third class day | $80 \%$ |
| During the fourth, fifth, or sixth class day | $50 \%$ |
| Seventh day of class and thereafter | No refund |

Checks for courses dropped will be disbursed in the Bursar's Office after the fourth ( $\left.4^{\text {th }}\right)$ 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.

Refunds are granted for those fees designated as "refundable." The refundable fees assessed at registration are tuition and designated tuition. These fees are calculated based upon the number of semester credit hours for which a student registers. Refunds of refundable fees are calculated based upon the total amount of these fees assessed at registration and not on the basis of the amount of the total paid, if a student is paying on an installment basis.

Students who are not indebted to the University should expect to receive checks by mail after the fourth week of class during a regular semester and after the third week of class during a summer term. Students who pay fees through financial aid/assistance (including Guaranteed Student Loans) will receive refunds only if the Office of Student Financial Assistance determines that refunds are due.

Students who register for courses that are either paid for directly or through the use of financial aid/assistance are considered enrolled at the University until they officially withdraw through the Office of the University Registrar.

Ceasing to attend classes or stopping payment of checks for fees owed without officially withdrawing from the University will result in semester grades of "F." Thus, any remaining balance owed to the University by a student who ceases to attend classes, but who does not officially withdraw through the Office of the University Registrar, is still due and NOT subject to reduction.

Refunds for parking fees paid at the time of registration 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 Services 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 at the University.

## TYPES OF FINANCI AL AID AND ASSI STANCE

## Loans

The loan programs described below are not available to international students or to high school students who have gained early admission to the University.

The Guaranteed Student Loan (or GSL) Program is offered through participating lending institutions and is designed for individuals who cannot qualify for programs with stricter need requirements, but who still have difficulty meeting college expenses. The interest rate is less than $8.25 \%$. Under this plan, the student is responsible for locating a bank or credit union that participates in the Guaranteed Student Loan Program. Although the Office of Student Financial Assistance is involved in certifying a student's enrollment and recommending action, the lending institution makes the final decision. All non-residents are strongly encouraged to try to obtain a GSL, if applying for other types of financial aid through the Office of Student Financial Assistance.

The Texas Guaranteed Loan Corporation (TGSLC) is a public, non-profit corporation established by the Texas Legislature. This corporation was created to guarantee the funds distributed as part of the Guaranteed Student Loan (or GSL) Program.

As other programs become available at the University, students should contact the Office of Student Financial Assistance directly for pertinent information.

## FI NANCI AL AID AND ASSI STANCE ELI GIBILITY

The Office of Student Financial Assistance 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. In order to initiate the process of review for financial aid awards, students must be U.S. citizens or permanent residents and should do the following:

1. Secure admission to Texas Southern University through the Office of Admissions via the process described in the next chapter of this
document.
2. Secure the U.S. Department of Education's Federal Application for Federal Student Aid (FAFSA) from any high school counselor or any college/university financial aid office, and complete and return it to the address indicated, or, preferably, online at www.fafsa.ed.gov. (This step will eventually produce a Student Aid Report [SAR] that will be mailed directly to the student at his/her home address, in approximately eight [8] to ten [10] weeks; for online submissions, this turnaround is seven [7] to ten [10] business days, and corrections can be made instantly.)
3. Submit any supporting documentation that may be required to the Office of Student Financial Assistance, Texas Southern University, 3100 Cleburne; Houston, Texas 77004-9987; 713.313.7071.
4. If the student has attended another college/ university, a financial aid transcript must be sent to the Texas Southern University Office of Student Financial Assistance from each institution attended to accompany the federal Student Aid Report information.
5. Make inquiries about scholarships available and submit applications, when qualifications are met, after reading the preceding section on scholarships in this chapter of this bulletin. Additional information may be obtained electronically at www.tsu.edu.

Once the Office of Student Financial Assistance (or other designated office) receives all documents referenced, the applicant will be considered for a possible financial aid award, financial assistance, or scholarship. A student who applies for financial aid or assistance and is not awarded at the time of registration must be prepared to pay for tuition, fees, books, and housing from personal funds as part of the registration process.

## Financial Aid Eligibility Requirements

In order to maintain eligibility for consideration for financial aid, students must meet the standards set forth in Texas Southern University's policy on Satisfactory Academic Progress (SAP). These standards are referenced in the next chapter of this document as academic regulations. In addition to these standards, a time frame requirement must also be met in conjunction with the SAP standards for eligibility. Thus, in reality, three facets of the individual student record determine financial aid eligibility: credit hours (from SAP standards), grades (from SAP standards), and time frame.

The requirements in each facet vary in accordance with academic status (undergraduate, graduate, or professional student), the college or school of enrollment, and enrollment status (full time, half time, or less than half time). When time frame is combined with the University's SAP standards, reference is made in the document, generally, to financial aid SAP. When time frame is not a factor, reference is simply made to SAP at the University.

With regard to the credit hours needed to maintain eligibility for students who receive aid, their overall enrollment at the University will be reviewed once each year at the end of the spring semester to verify if they have earned a minimum number of credit hours for their academic classification (freshman, sophomore, etc.).

With regard to the grades needed to maintain eligibility, students receiving aid must satisfy a cumulative grade point average (GPA) requirement each year. Their GPA must meet the minimum standards of their individual academic classifications.
considered for financial aid for a limited time only. Their enrollment in all postsecondary institutions, regardless of financial aid support, is considered when determining the total number of credit hours that they are allowed to enroll for with the benefit of financial aid.

The Office of Student Financial Assistance should be contacted directly regarding the specifics of time frame limitations. Students are notified when they are approaching enrollment in the maximum number of credit hours permitted. If students exceed this number before finishing their individual programs of study, then they will no longer be eligible to receive federal student assistance.

## Financial Aid Probation

Students are placed on probation with regard to the receipt of financial aid for their next semester of attendance if they fail to earn the minimum number of semester credit hours and/or achieve the minimum GPA required for their attendance status. To be removed from this probation, students must complete the requisite number of semester credit hours with the corresponding GPA to regain unconditional eligibility under the Satisfactory Academic Progress (SAP) policy. If these conditions are met, the probationary status will automatically be removed at the end of the semester where probation has been imposed.

## Financial Aid Suspension

Students who fail to earn the required semester credit hours and achieve the required GPA while on financial aid probation will be placed on financial aid suspension. Thus, they will no longer be eligible to receive federal student assistance. In order to return to financial aid probationary status, students must complete, at their own expense, a regular semester of work at the University as a student in the fill time, half time, or less than half time status in which they were originally suspended and attain the minimum number of semester credit hours and achieve the cumulative GPA required.

## Exclusions

The following types of registration or grades cannot be used to fulfill conditions for the removal of financial aid probation or suspension: advanced placement credits, credits earned through the credit by examination process, independent study courses, withdrawal (W), incomplete (I), in progress (R), unsatisfactory (U), and fail (F).

## Additional Academic Requirements

If students apply for financial aid, their eligibility will be based on past performance as measured by the Satisfactory Academic Progress (SAP) standards for financial aid. If a student making application is a transfer student, he/she will be evaluated within the financial aid SAP maximum time frame based upon the number of semester credit hours accepted by Texas Southern University.

Other factors that students need to be cognizant of with regard to the assessment of financial aid status are as follows:

1. Semester credit hours earned from foreign institutions are included in the financial aid SAP evaluation if these credits are accepted by the University and the college/school in which a major is declared.
2. If a course is repeated, the semester credits earned will count toward the determination of enrollment status and maximum time frame.
3. Courses in which grades of "I" (incomplete) are received do not earn credits to meet the academic year minimum, nor do they influence GPA's in the semester in which they are taken; however, the credits are counted in the maximum time frame.
4. Courses in which grades of "W" (withdrawal) are received do not earn credits to meet the academic year minimum, nor do they influence GPA's in the semester in which they are taken; however, the credits are counted in the maximum time
frame. Students may retake courses from which they withdraw, and retaken credits will count toward the determination of enrollment status and minimum credits earned.
5. Credits earned from undergraduate developmental/remedial courses that students are required to take count toward the determination of enrollment status, minimum semester credits earned, and maximum time frame.
6. Credits earned from undergraduate courses taken while students are enrolled as graduate students do not count toward the academic year minimum, nor do they influence GPA's, nor do they count toward the determination of enrollment status or minimum credits earned, unless these credits are specifically required as prerequisites.
7. All undergraduate and prerequisite courses are included in the financial aid time frame for financial aid SAP.
8. Summer terms are considered special semesters and are not automatically monitored to determine financial aid SAP. Students who attend summer terms and who want credits earned during these terms counted with fall and/or spring semester credit totals must make a request for such at the end of the summer terms of attendance.

## Right to Appeal

Students placed on financial aid suspension may appeal this status by completing a Satisfactory Academic Progress Appeal Form in the Office of Student Financial Assistance within 30 days of receipt of notification.

Students who believe that they have been identified as not having met financial aid SAP requirements due to the late posting of grades should contact the Office of Student Financial Assistance once grades have been posted. A counselor will then review the situation and determine whether or not SAP requirements have been appropriately met.

Students who are placed on financial aid suspension due to GPA's and minimum semester credit hours earned that violate the financial aid SAP standards should submit a Satisfactory Academic Progress Appeal Form and a current Texas Southern University academic transcript to the Office of Student Financial Assistance for review. A counselor will render a decision after reviewing the documentation presented.

Students who fail to achieve financial aid SAP standards due to mitigating circumstances (such as illness, injury, family crisis, or credits earned from incomplete courses) may appeal their financial aid status by submitting a Satisfactory Academic Progress Appeal Form, a current Texas Southern University academic transcript, and a letter of explanation to the Office of Student Financial Assistance. The letter of explanation should have supporting documentation attached. A counselor will review the appeal and render a decision based upon documentation provided.

Students who attend either one or both summer terms during a year when they have been placed on either financial aid probation or suspension and succeed in increasing their GPA's and/or semester credit hours completed in order to meet the minimum financial aid SAP standards for the year should appeal their status in writing, with supporting documentation, to the following:

Satisfactory Academic Progress Appeals Committee Office of Student Financial Assistance Texas Southern University 3100 Cleburne Street Houston, Texas 77004-9987
Decisions on these appeals will be made within twenty (20) business days after receipt. Students will be notified in writing of the Appeals Committee's decision.

## CHECK DI SBURSEMENT

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

## GENERAL REGULATI ONS

Each graduate student should understand and adhere to 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.

## NOTI CE OF NONDI SCRIMI NATORY 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.

## NOTI CE OF WEAPONS POLICY

Under Texas Penal Code, Section 46.03, citizens may obtain licenses to carry concealed handguns. 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.

## UNI VERSI TY COMMI TMENT 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" forged the institutional mission. Accordingly, the University is committed to the management of a comprehensive educational curriculum that supports the motto as well as the overall vision and value of Texas Southern University.

## Student Responsibilities

Texas Southern University provides a student-centered learning environment wherein students are encouraged to practice self-discipline, assume responsibilities as mature adults, and enjoy certain freedoms. When students elect to enroll at the University, they also accept and agree to abide by the rules, regulations, and policies that govern the University. 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 exercise rules and regulations designed to promote attainment of its purpose.

## Academic Grievances

Purpose. The following procedures are designed to provide a means for students to petition for review of final course grades alleged to be incorrect. Before filing a formal appeal, students are urged to resolve grievances informally with the instructor of the course. Students filing a written appeal shall be expected to abide by the final decision of the committee, as provided for in these procedures, and shall be precluded from seeking further review under any other procedure within the University.

Conditions. A student may seek a review of a final grade if he/she feels that one of the following conditions apply:
a. The assignment of a grade was on some basis other than performance in the course.
b. The standards applied to a grade were not the same as those applied to other students in the course.
c. The assigned grade represents a substantial and unannounced departure from the instructor's previously stated standards.

Procedures. A student who feels that his/her grade is incorrect should:

1. Confer promptly with the instructor of the course. If the instructor is unavailable and cannot be reached by the student after a reasonable effort, then he/she shall consult with the chair of the department offering the course.

If the student and instructor or department chair is unable to arrive at a mutually agreeable solution, the student may file an appeal within twenty days after the first day of class of the next semester (not including summers) to a standing committee of three tenured faculty members of the department offering the course.

If the instructor of the course is a member of the committee, he/she shall be replaced by a tenured faculty member selected by the chair of the department.
2. File an appeal by submitting to the departmental committee a detailed statement regarding the alleged improper grade, as well as any relevant evidence. The appeal shall be dismissed if:
a. the student has submitted the same, or substantially the same, complaint to any other grade review procedure,
b. the appeal is not timely, or
c. the student has not conferred with the instructor or department chair before filing the appeal
3. Allow the departmental committee to take action. If the appeal is not dismissed, the committee shall submit a copy of the student's written appeal to the instructor with a request for a prompt written reply.
4. Work toward a mutually agreeable solution in concert with the committee and the instructor. If a mutually agreeable solution is not achieved, the committee shall advise both the student and the instructor that the matter has been sent to the Dean of the academic unit offering the course.

The Dean of the academic unit shall convene a committee of three tenured faculty
members from departments outside of the department offering the course. This committee shall hold an informal, non-adversarial fact-finding meeting concerning the dispute. Both the student and the instructor shall be entitled to be present throughout this meeting and to present any evidence deemed relevant, except the student shall not be present during the discussion of any other student.

Neither the student nor the instructor shall be accompanied by counsel, an advocate, or representative. The meeting shall be closed to the public. After the fact-finding meeting, if the majority of the committee finds that the evidence supports the student's complaint, the committee shall take any action thought to rectify the situation, including, but not limited to:
a. directing the instructor to re-grade the student's work,
b. directing the instructor to administer a new final examination or paper in the course,
c. directing the cancellation of the student's registration in the course, or
d. if no reasonable alternative is available, directing the instructor to award a grade of "pass" in the course.

The committee is not authorized to award a letter grade, or to reprimand, or otherwise take disciplinary action against the instructor. The decision of the committee is final and shall be promptly reported, in writing, to the parties involved. The Dean of the academic unit has the responsibility for implementing the decision of the committee.

## Student Grievances

## Notice of Title IX Coordinator

Advice on matters related to Title IX is readily available in the office of General Counsel. While informal resolution is in most cases highly desirable by all parties involved, any claims based on a violation of Title IX should be directed to the Texas Southern University Title IX Coordinator:

Title IX Coordinator
Office of General Counsel
Texas Southern University
3100 Cleburne Street
Houston, Texas 77004-9987
The Title IX Coordinator may be reached in the Office of General Counsel, Hannah Hall room 310, by phone at (713) 313-7950 or by fax at (713) 313-1906.

## Title I X Student Grievance Procedure

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color or national origin in programs or activities receiving federal financial assistance. Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in educational programs or activities that receive federal financial assistance. It is the policy of Texas Southern University to not discriminate on the basis of race, color, national origin or sex in its educational programs, activities, or employment.

The following procedure governs any case in which a student has a complaint, including but not limited to a complaint of discrimination on the basis of race, sex, sexual orientation, color, religion, and national or ethnic origin, against a member of the faculty, staff or administration
of Texas Southern University. It shall not be utilized for sexual harassment complaints. Sexual Harassment complaints shall be resolved pursuant to Texas Southern University's Sexual Harassment Policy and Sexual Harassment Investigative Procedure.

Since an instructor's evaluation of the quality of a student's work is final, this procedure does not apply in any dispute about a grade assigned to a student by a member of the faculty unless it is alleged that the determination of the grade resulted from discrimination based on race, sex, sexual orientation, color, religion, or national or ethnic origin. Similarly, this procedure does not apply to any matter inherent in the academic freedom of an instructor, such as the syllabus or contents of a course of instruction. The procedure may not be used to complain about the quality of a course or the quality of instruction in a course. Such concerns should be addressed directly to the department in question.
A. Informal resolution. If at all possible, the student with a complaint (Complainant) is encouraged to bring a problem directly to the attention of the person whose actions he or she has found to be objectionable. Whether or not this is done, the Complainant may seek assistance and advice on how to secure an equitable solution of the problem from any administrator or faculty member of any school.
B. Filing of a written complaint. If the problem cannot be resolved by informal discussion or if the Complainant has chosen not to discuss the matter informally, the Complainant should submit a letter to the Office of the Associate Provost for Student Services describing the complaint and the facts upon which it is based (insofar as the facts are known to the Complainant), specifying the issue or issues in question, and indicating what redress or resolution of the grievance is sought. The complaint should be brought to the attention of the Associate Provost for Student Services as soon as possible after the action giving rise to it, but in no case may a complaint be submitted later than forty-five (45) days after the action upon which it is based.

The Associate Provost shall investigate within three (3) weeks after the submission of the complaint and may try to resolve the complaint informally. At the Complainant's request, the Associate Provost may agree to discuss informally the complaint with the person complained against without identifying the Complainant; however, further investigation will not be undertaken until the Complainant is ready to be identified. If the complaint has not been resolved within this three-week period, the Associate Provost shall refer it to the Student Service's Advisory Committee on Student Grievances (Advisory Committee) unless the Complainant indicates that he or she does not desire such a referral, in which case the complaint shall be dismissed. Within twenty-one (21) days of receipt of the referral from the Associate Provost, the chair of the Advisory Committee shall convene a hearing attended by the parties to the complaint to hear the complaint.

## C. Review by the Associate Provost's Advisory Committee on Student Grievances

1. Composition. The Advisory Committee shall be composed of five (5) members appointed by the Provost. The Advisory Committee shall be a standing committee with members appointed annually at the beginning of the academic year. One student member and at least two faculty members shall be appointed to the committee. The remaining two members may be administrators, faculty members, or other individuals employed by the University. The committee shall elect a chair from among its members.

The Associate Provost shall serve as an ex officio non-voting member of the committee and will participate fully in the committee's deliberations. The Associate Provost will be available to conduct such further investigation, as the committee deems appropriate.

Members of the committee who may be directly involved in the subject matter of any complaint are to rescue themselves during the review of that complaint. The Complainant and the person against whom the complaint is lodged shall have the
right to challenge individual members of the Advisory Committee where such challenge is based on cause (e.g., close personal contact with one of the parties), but peremptory challenges will not be entertained. The Advisory Committee, excluding that person being challenged, will decide the disputed issues in cases of challenge, and its decision will not be subject to appeal. When members are excused or are otherwise unavailable to participate in the deliberations or have been successfully challenged for cause, the Provost will designate appropriate substitutes to serve for the duration of the pending case.
2. Deliberations. The Advisory Committee shall inform both parties in writing that it is reviewing the complaint. The person against whom the complaint has been lodged will be given a copy of the Complainant's letter describing the complaint if this has not already been done. Reasonable time (in no case less than one week and ordinarily within two weeks) is to be allowed between the receipt of the written notification and the date of the commencement of the review in order to provide the participants time to prepare for a meeting with the committee if either of the parties or the committee wishes it.

At the Advisory Committee hearing, the Complainant and the person complained against may each be accompanied by a member of the Texas Southern community (i.e., student, faculty member, administrator, or other employee of the University); however, these advisers may not act as legal representatives for the Complainant. These proceedings are non-adversarial in nature, and the advisers, while they may counsel the individual whom they are accompanying, may not participate directly in the proceedings.

The Complainant and the person complained of will have the opportunity to present information and witnesses deemed relevant by the committee. The committee chair shall decide in the event of a disagreement regarding relevant witnesses or information. All documents considered by the committee that relate to the actions of the person against whom the complaint has been filed may be inspected by that person.

The Complainant will be permitted to inspect those documents or parts of documents directly relating to the Complainant's specific complaint that the committee deems relevant and concludes were not written under a presumption of confidentiality. Ordinarily both parties may be present when either party or any witness is being interviewed; however, the committee may enter into closed session with or without one or both parties upon the vote of a majority of the members of the committee (except that when any witness is being interviewed either both or none of the parties will be present as the committee deems appropriate).

The Advisory Committee, having thus conducted its inquiry and having interviewed whatever further witnesses it deems necessary, will then deliberate without the presence of the parties and will, within twenty-one (21) days from the date of conclusion of the hearing, prepare and adopt a written report (1) stating its findings of fact and the conclusion, if any, it has drawn from these facts and (2) including a summary of the substance of testimony that the Advisory Committee has relied on in reaching its conclusions and that was heard in closed session if allowed by law. In a separate section of the report, the committee may outline what actions, if any, it recommends be undertaken by the University to resolve the matter. The report of the committee will be adopted only upon the majority vote of the members of the committee who participated in the Advisory Committee's inquiry.

The Complainant may challenge the appropriateness of the Provost as the final arbiter of the complaint but must do so before the committee's investigation has concluded. If it is shown by the Complainant to the committee's satisfaction that
the Provost cannot fairly decide the matter, then the committee shall so inform both the parties and the Provost, and the committee shall submit its report to the President, or his or her designee, who will substitute for the Provost in the resolution of the complaint.
D. Final resolution of the Complaint by the Provost. The committee will submit its report to the Provost ordinarily within seven (7) days after adoption by the committee. The Associate Provost will permit the Complainant and the person against whom the complaint was lodged to inspect the committee's findings of fact, conclusions, and summary of testimony in the report. Since the report is a confidential document advisory to the Provost, only the Provost is entitled to a copy of it. Neither of the parties is entitled to a copy of the report. The confidentiality of the report shall be maintained in accordance with the Family Educational Rights and Privacy Act and any other applicable state or federal law.

The Provost shall accept the committee's findings of fact unless the Provost believes that the findings are not substantiated by the evidence presented to the committee. The Provost may accept, modify, or reject the conclusions of the committee and any recommendations it might have made. However, in any case where the Provost does not believe it is appropriate to follow the recommended actions of the committee, the Provost will discuss the matter with the committee and explain the reasons for not doing so. The Provost will then make a decision on the matter and convey his or her decision in writing to the Complainant, the person against whom the grievance was lodged, and the committee; the Provost's decision will include his or her conclusions about the issues raised in the complaint and the remedies and sanctions, if any, to be imposed.

The Provost's decision shall be final. The Provost's decision may be to take any actions as may be within his or her authority (e.g., issue any oral or written warning or reprimand to the individual against whom the complaint was lodged; permit a Complainant to participate in an educational program or activity; institute academically appropriate procedures whereby a Complainant's grade may be reviewed). If the remedy deemed appropriate by the Provost is beyond his or her authority, the Provost will recommend the initiation of such action (disciplinary or otherwise) in accordance with applicable University practices and procedures. The Provost's decision should ordinarily be rendered within thirty (30) days after the Provost receives the committee's report.
E. Time Guidelines. If Texas Southern University is not in session during part of these proceedings or in instances where additional time may be required because of the complexity of the case or unavailability of the parties or witnesses, any of the time periods specified herein may be extended by the Provost. If a period is extended, the Complainant and the person against whom the complaint has been filed will be so informed.
F. Retaliation is Prohibited. It is contrary to state and federal civil rights laws and to University policy to retaliate against any person for asserting his or her civil rights, including filing a claim of discrimination or participating as a witness in an investigation. Retaliation or reprisals against any participant in an investigation will not be tolerated by the University.

Retaliation against a person who files a claim of discrimination (including sexual harassment) is grounds for a subsequent claim by that person under the University's Retaliation Policy and Investigation Procedure. If a Complainant believes that he or she has been retaliated against as a result of filing a grievance, he or she may pursue a separate complaint charging retaliation by means of the University's Retaliation Investigation Procedure.

Anti-retaliation Policy. It is the policy of Texas Southern University that positive
employee relations and morale can best be achieved and maintained in an environment that promotes ongoing open communication between administration, staff, faculty, and students, including open and candid discussions of problems and concerns. The University encourages staff, faculty and students to express their issues, concerns or opinions without fear of retaliation or reprisal. Therefore, the University wishes to make clear that it considers acts or threats of retaliation to constitute a serious violation of University policy.

Retaliation is any action that has the effect of punishing a person for engaging in a legally protected activity, such as alleging discrimination, making a discrimination or harassment complaint, or assisting in a discrimination or harassment investigation. The EEOC has determined that there three essential elements of a retaliation claim: 1) engaging in a legally protected activity, 2) an adverse employment action, such as suspension, demotion, or termination and, 3) a causal connection between engaging in the protected activity and the adverse employment action. Other examples of adverse employment actions include but are not limited to harassment, intimidation, threats or coercion. Retaliation against any person who seeks assistance from the Offices of General Counsel, Internal Audit, Institutional Compliance or Human Resources, or who files a claim of discrimination, including sexual harassment, is prohibited.
Direct or indirect retaliation against anyone who, in good faith, raises or points out compliance-related violations or issues is also prohibited. There shall be no retaliation against any participant or witness in an investigation of a complaint, grievance or compliance violation. Any employee who retaliates against a fellow employee or a student in violation of the law and/or this policy is subject to disciplinary action, up to and including termination of employment.

Procedures. All administrators, managers and faculty should take proactive measures to assure staff or students that the University encourages the reporting of problems and prohibits retaliation or reprisal for reporting such problems.
Allegations of retaliation will be investigated pursuant to the University's Retaliation Investigation Procedures. Any employee who is found to have retaliated against a fellow employee or a student in violation of the law and/or this policy is subject to disciplinary action in accordance with the University's Discipline and Termination Policy, up to and including termination of employment.
An employee, who has a complaint of retaliation by anyone at work, including any supervisor, co-worker, or visitor, should report such conduct to his or her supervisor. In addition, the employee should report the retaliation to the University's Employment Compliance Manager. If the complaint involves the employee's supervisor or someone in the direct line of supervision, or if the employee for any reason is uncomfortable in dealing with his or her immediate supervisor, the employee should go directly to the Compliance Manager. If the complaint involves the Compliance Manager, the employee should make a report to the University's General Counsel. For more information, contact the Office of General Counsel at (713) 313-7950.

## SEXUAL HARASSMENT

Policy. It is the policy of Texas Southern University that all employees have the right to work in an environment free of discrimination and sexual harassment. As such, the University has a no-tolerance policy on sexual harassment. That means that any employee who sexually harasses a fellow employee or a student is subject to discipline, up to and including termination of his or her employment.

The University's sexual harassment policy is designed to apply to employment and academic relationships among faculty, administrators, staff, and students and prohibits male-to-female, female-to-male, faculty-student and same-sex harassment. Every employee of the University must avoid offensive or inappropriate sexual and/or sexually harassing behavior at work. Furthermore, the University's guidelines apply to all sexual advances, regardless of whether they are made in the office, outside the office, or during social or business occasions.

Definitions. Texas Southern University has adopted and incorporated the regulations of the Equal Employment Opportunity Commission (EEOC) and case law that define sexual harassment and hostile work environment. Prohibited conduct and activities include:

1. Unwelcome sexual advances;
2. Requests for sexual favors, whether or not accompanied by promises or threats relating to the employment relationship or that in any way influence any personnel decision regarding a person's employment, evaluation, wages, advancement, assigned duties, shifts or any other condition of employment or career development;
3. Any verbal or physical conduct of a sexual nature that threatens or implies, either explicitly or implicitly, that an employee's submission to or rejection of sexual advances will in any way influence any personnel decision regarding his or her employment, evaluation, wages, advancement, assigned duties, shifts or any other condition of employment or career development;
4. Any verbal or physical conduct that has the purpose or effect of substantially interfering with an employee's ability to do his or her job;
5. Any verbal or physical conduct that has the purpose or effect of creating an intimidating, hostile or offensive working environment;
6. Certain conduct in the workplace, whether physical or verbal, committed by supervisors or non-supervisory personnel, including but not limited to references to an individual's body; use of sexually degrading words to describe an individual; offensive comments; off-color language or jokes; innuendoes; and sexually suggestive objects or behavior, books, magazines, photographs, cartoons or pictures, and;
7. Retaliation against employees who report sexual harassment or assist the University in investigating a complaint is against the law and is prohibited. Retaliation includes but is not limited to refusing to recommend an employee for a benefit for which he or she qualifies, spreading rumors about the employee, encouraging hostility from coworkers and escalating the harassment.

## Prohibitions

1. It is a violation of the University policy for anyone to engage in sexual harassment as defined in Section A.
2. It is a violation of the University policy for anyone who is authorized to effectively recommend or take personnel or academic actions affecting faculty, staff members or students to engage in sexual harassment as defined in Section A.
3. It is a violation of University policy for anyone to offer sexual favors in order to obtain preferential treatment with regard to conditions of employment or academic standing.
4. It is a violation of the University policy for an administrator/supervisor to take personnel or academic actions as a reprisal or in retaliation against an individual for reporting sexual harassment.
5. As with other university policies, it is also a violation of University policy for anyone to make false accusations of sexual harassment or other misconduct.

## Responsibilities of the University

1. Whenever there is a violation of this policy, prompt corrective action shall be taken by the University consistent with existing rules, regulations, and policies. The University shall take preventive and corrective disciplinary action, up to and including termination of employment, against any employee who engages in sexual harassment.
2. The University's Compliance Officer shall be responsible for the coordination,
dissemination, and implementation of this policy and shall work closely with senior academic and non-academic administrators to assure compliance with the provisions of this policy. The Office of General Counsel and the Human Resources Department shall serve as resources with regard to sexual harassment-related matters.
3. Each dean, director, department chairman and/or administrative officer of an operational unit shall cooperate with the Compliance Officer in the implementation and dissemination of this policy and in providing an environment free of sexual harassment. Such officials shall refer complaints arising under this policy to the Compliance Officer.
4. It is the obligation of every faculty, student and staff member of the University to adhere to this policy. Failure of supervisors to promptly investigate and report allegations of sexual harassment or failure to take timely corrective actions is a violation of University policy and may be considered a violation of the law. The University shall take appropriate disciplinary action, up to and including termination of employment, against any supervisor who fails to investigate, report, and/ or take timely corrective action in cases of sexual harassment.
5. The University shall exercise reasonable care to prevent and correct promptly any sexual harassing behavior and to safeguard against sexual harassment and to prevent any harm that could have been avoided.
6. The person affected by the sexual harassment of another must make an attempt to take advantage of a reasonable preventive or corrective opportunity provided by the University or to otherwise avoid harm.
7. Retaliation against an employee who reports sexual harassment or assists the University in investigating a complaint is prohibited; any individual who retaliates against an employee under these circumstances will be subject to appropriate disciplinary action, up to and including termination of employment.

Complaints. An employee, who has a complaint of sexual harassment by anyone at work, including any supervisor, co-worker, or visitor, should report such conduct to his or her supervisor. In addition, the employee should report the harassment to the University's Compliance Officer. If the complaint involves the employee's supervisor or someone in the direct line of supervision, or if the employee for any reason is uncomfortable in dealing with his or her immediate supervisor, the worker should go directly to the Compliance Officer. If the complaint involves the Compliance Officer, the employee should make a report with the University's General Counsel. The University will work to investigate all complaints as quickly and as professionally as possible. When investigations confirm the allegations, appropriate corrective action will be taken.

In the event the University learns that an employee has made a sexual harassment complaint in bad faith or has knowingly provided false information regarding a complaint, appropriate disciplinary action may be taken against the individual who provided the false information.

Confidentiality. The University will make every attempt to keep the information provided in the complaint and investigation process confidential to the fullest extent permitted by the circumstances and allowed by law. However, confidentiality cannot be guaranteed.

## SERVICES TO STUDENTS WITH DISABILITIES

## I ntroduction

Texas Southern University maintains an operating policy and associated procedures to ensure the understanding of the University's responsibilities regarding the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. The Provost/ Senior Vice President for Academic Affairs and Student Services, along with
the Associate Provost for Student Services, will review the policy on an annual basis and forward recommendations for revisions on to the appropriate offices on the Campus, including the Human Resources Office.

The Americans with Disabilities Act (ADA) of 1990 mandates equal opportunities for persons with disabilities in all public facilities, programs, activities, services, and benefits derived from them. Section 504 of the Rehabilitation Act of 1973, as amended, mandates equal opportunity for qualified persons with disabilities in all programs, activities, and services of recipients of federal financial assistance. Both ADA and Section 504 are civil rights statutes, which prohibit discrimination on the basis of disability, and they obligate colleges and universities to make certain adjustments and accommodations so as to offer to persons with disabilities the opportunity to participate fully in all institutional programs and activities.

Section 504 states "a handicapped person is anyone with a physical or mental impairment that substantially impairs or restricts one or more major life activities, such as caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning, and working." For federally assisted programs or activities operated by post-secondary education recipients, the specific obligations with regard to handicapped students include, but are not limited to, the following:

- All programs and activities must be offered in the most integrated setting appropriate.
- Academic requirements must be modified, on a case by case basis, to afford qualified handicapped students and applicants an equal educational opportunity.
- A recipient may not impose upon handicapped students rules that have the effect of limiting their participation in the recipient's education program or activity; for example, prohibiting tape recorders in classrooms or guide dogs in campus buildings.
- Students with impaired sensory, manual, or speaking skills must be provided auxiliary aids such as taped texts, interpreters, readers, and classroom equipment adapted for persons with manual impairments.

Texas Southern University provides all educational and other university-sponsored programs and activities to persons with disabilities in the most integrated setting appropriate. Students, employees, applicants, and other individuals with disabilities served by the University are not segregated, separated, or treated differently. The University does not require persons with disabilities to take advantage of all adjustments, accommodations, or special services.

## I nformation

All communications from the University shall be made accessible to all students and employees concerning ADA and Section 504 related information. This includes student and employee policies, procedures, emergency evacuation plans, and other related information that shall be published in the student paper, student and employee handbooks, and the University's personnel guide.

## Oversight Committee

An executive ADA committee has been formed and given a formal charge by the President of the University. This committee is the Executive ADA/Section 504 Oversight Committee ("Oversight Committee"). The members of the Committee serve for terms of 2 years. The President appoints new members at the expiration of each 2year term.

Representation includes an individual from each of the following: Office of the General

Counsel, Student Services, Human Resources, the Thurgood Marshall School of Law, and Facilities. In addition, three members are chosen from the student and faculty body.

The Oversight Committee ensures that the University makes such modifications to its classrooms and testing requirements as are necessary to ensure that such requirements do not discriminate or have the effect of discriminating on the basis of disability. Specifically, the procedures include the following:
a. Certify that an individual has a disability;
b. Undertake reasonable steps to obtain a professional determination of whether academic adjustments/auxiliary aids are necessary and, if they are, what kind;
c. Determine on an individual basis what academic adjustment(s)/auxiliary aid(s) TSU will grant, and ensure that the academic adjustment(s)/auxiliary aid(s) granted is/are of an acceptable level of quality and effectiveness for each student making such a request on the basis of a disability;
d. Provide students with a justification for denial of an academic adjustment/auxiliary aid, or for the selection of another academic adjustment/auxiliary aid, if the provided academic adjustment/auxiliary aid is different from that requested by the student;
e. Provide students with a reasonable opportunity to submit additional information to TSU, if their initial documentation does not support the request for academic adjustments/auxiliary aids; and
f. Ensure that decisions regarding requests for academic adjustments/auxiliary aids are made in a timely manner.

With the start of the fiscal year 1999-2000, a University Compliance Manager (also the ADA/504 Coordinator) in the Human Resources Office assumed responsibility in coordination with the Oversight Committee for resolving issues arising under the ADA and Section 504. The University Compliance Manager is responsible for ensuring that the University is in compliance, responds to requests from the government, and provides notification to all appropriate members within the University. The University Compliance Manager also works closely with his or her counterparts who have been designated as coordinators in the various schools with regard to complaints

## Accessibility Issues

A designated representative in each building (for example, Hannah Hall, Bell, Fairchild, etc.) will serve as the point-of-contact for all ADA and Section 504 accessibility issues. That individual will be responsible for ensuring that all residents in the building are properly notified regarding ADA and Section 504 announcements and emergency evacuation plans.

The representative will also work with the Facilities area to ensure that the buildings that the University owns and/or operates are maintained within the standards of compliance required by the relevant provisions of the ADA and Section 504.

## Complaint Process

The purpose of this procedure is to provide the primary process for addressing student and employee complaints based on disabilities as are applicable in the ADA and Section 504 of the Rehabilitation Act of 1973. Any Texas Southern University student or employee may file a complaint if the situation warrants that action. A student grievance is a formal complaint filed by an individual enrolled in the University. An employee grievance is a formal complaint filed by an individual who is on the University's payroll. Either individual may file a complaint. Issues that are grieved include, but are not limited to:

- Denial of accommodations that have been requested OR
- Insufficient accommodations

Texas Southern University has adopted an internal complaint procedure for providing
prompt and equitable resolution of complaints alleging any action prohibited by the Title II portion of the ADA and/or Section 504 of the Rehabilitation Act.

All complaints should be addressed to the University Compliance Manager at:
Texas Southern University
Office of the General Counsel
3100 Cleburne Street
Houston, Texas 77004-9987
The following steps explain the procedure:

1. A complaint should be filed in writing, contain the name and address of the person filing it, and briefly describe the alleged violation of the regulations.
2. A complaint should be filed within thirty (30) days after the complainant becomes aware of the alleged violation.
3. An investigation, as may be appropriate, shall follow a filing of complaint. The University Compliance Manager shall conduct the investigation. These rules allow for an informal but thorough investigation, affording all interest persons and their representatives, if any, an opportunity to submit evidence relevant to a complaint.
4. A written determination as to the validity of the complaint and a description of the resolution, if any, shall be issued by the University Compliance Manager and a copy forwarded to the complainant and Human Resources no later than fifteen (15) business days after its filing.
5. The ADA Coordinator shall maintain the files and records of Texas Southern University relating to the complaints filed.
6. The Compliance Manager will gather all the documents relating to the investigation and submit the documents with a summary of the case to the ADA/Section 504 Hearing Committee.
7. A hearing will be held within five (5) days of the committee receiving the information.
8. The committee will issue a decision within twenty-four (24) hours of hearing the complaint.
9. The complainant can request an appeal of the case in instances where he/she is dissatisfied with the resolution.

The request for appeal should be made within five (5) business days to:
Associate Provost for Student Services
Texas Southern University 3100 Cleburne Street Houston, Texas 77004-9987
10. The right of a person to a prompt and equitable resolution of the complaint filed hereunder shall not be impaired by the person's pursuit of other remedies such as the filing of an ADA complaint with the responsible federal department or agency. Use of this complaint procedure is not a prerequisite to the pursuit of other remedies.
11. There rules shall be constructed to protect the substantive rights of interested persons to meet appropriate due standards and to assure that Texas Southern University complies with the ADA in implementing regulations.

The Associate Provost for Student Services will appoint the ADA appeals committee. This committee, the ADA/Section504 Hearing Committee, will hear all complaints and appeals related to ADA and Section 504. The Committee is composed of three students, two faculty members, and two administrator/staff members. A faculty member or administrator/staff member who is appointed chairs the Committee.

## Hearing Procedures

1. The Chairperson will control the hearing and take whatever action is necessary to ensure an equitable, orderly, and expeditious hearing. As presiding officer, the Chairperson may remove anyone not complying with the rules and/or disrupting the hearing. Only clearly relevant and substantive objections will be allowed.
2. Legal, procedural rules of evidence will not be used in the disciplinary hearing.
3. All parties, members of the Hearing Committee, complainant, and the accused student may examine all available evidence and question witnesses.
4. The student and/or employee may bring a representative; however, it is not a requirement. The student and/or employee, or their representative, may ask questions if necessary.
5. Witnesses will be heard one at a time, and they may be excused from the hearing by the Chairperson after testifying.
6. After all available evidence and witnesses have been examined and questioned, all persons, except members of the Hearing Committee, must leave the room.
7. Members of the Hearing Committee will then make a determination of the case and render a written recommendation to the complainant and to the Associate Provost for Student Services.

Complaints in the following areas will utilize the same complaint procedure previously described:

- The Thurgood Marshall School of Law
- College of Pharmacy and Health Sciences
- All other colleges and schools combined

A copy of the final resolution resulting from the complaint procedure shall be provided to the appropriate officer in the school where the violation has occurred, to the Human Resources Office, and to the Office of the General Counsel.

## OFFI CE OF VETERAN AFFAI RS AND THE U.S. ARMY RESERVE OFFI CERS' TRAI NI NG CORPS (ROTC) PROGRAM

The Office of Veteran Affairs functions as part of the Office of the University Registrar and is organized to help support the educational process of persons who have served in the Armed Forces of the United States and who are eligible for educational benefits at the University.

Through this office, counseling is provided to facilitate the acquisition of benefits from the Veterans Administration. Advisement for the U.S. Army Reserve Officers' Training Corps Program (ROTC) that is available through Texas Southern University is also provided by the Office of Veteran Affairs. This office may be contacted by calling telephone number (713)-3131001. Of special note is the fact that students, who participate in the U.S. Army ROTC Program at Texas Southern University, are also cross-enrolled at the University of Houston.

The U.S. Army ROTC program exists as a series of college elective courses and field training activities which, when successfully completed, leads to a commission as a second lieutenant in the Active U.S. Army, the U.S. Army National Guard, or the U.S. Army Reserve. Military science courses are taken in conjunction with academic course loads.

Participants must be full-time students to enroll in Army ROTC, and their securing of Army commissions is entirely separate from the pursuit of academic degrees. Academic degrees may be pursued in such fields as accounting, chemistry, history, etc.; however, they will not be in military science. Most ROTC cadets first enroll in the two-year Basic Course (with no military obligation incurred) followed by enrollment in the two-year Advanced Course.

Veterans may receive credit for the Basic Course and may earn commissions by enrolling in ROTC for two academic years in conjunction with the completion of one six-week summer camp. Four-year and three-year Green to Gold scholarship winners are also required to participate in the Basic Course military science courses. A baccalaureate degree must be
conferred in order for a participant to return to Active Duty as a commissioned officer or to participate as a second lieutenant in the Reserve Forces.

There are monetary benefits to be derived from participation in the ROTC program. For each month of enrollment in the Advanced Course, participants will receive an allowance of $\$ 150.00$ up to $\$ 1,500.00$ per year for each of the two years.

Participants are also paid for attending the six-week summer camp, usually between the junior and senior years of enrollment. Participants will also retain and receive all educational benefits earned while on Active Duty, even if they receive ROTC scholarships. In the ROTC program, participants are not members of the Active Army, so they earn no Active Army benefits. As a Green to Gold scholarship cadet, participants may not be in a Reserve Component; however, a two-year Green to Gold non-scholarship cadet may be in a Reserve Component. For the latter case, participants will be entitled to reserve pay and certain benefits.

As referenced earlier in chapter one of this document, scholarships are available to students participating in the U.S. Army ROTC program. Detailed information on these scholarships, including the Green to Gold scholarships referenced above, may be obtained by calling (713)-743-3875.

## DRUG AND ALCOHOL ABUSE PROGRAM

Subsequent to the Higher Education Amendments of 1986, all institutions of higher education are required to certify that they "have in operation a Drug Prevention Program that is determined by the institution to be accessible to any officer, employee or student at the institution." From this mandate, the Substance Abuse Prevention, Education, and Intervention (SAPEI) program was established at Texas Southern University.

A University-wide program managed through the Office of Student Services, SAPEI is governed by policies approved by the Board of Regents. The policies regulate the use of alcohol, drugs, or other controlled substances on the campus of Texas Southern University. Local, State and Federal laws governing the use of alcohol, drugs, or other controlled substances are supported by this institution.

The SAPEI program is staffed by a licensed counselor and experienced support staff, as well as by volunteers consisting of University personnel, students, affiliate service providers, agencies and community groups. The primary purpose of SAPEI is to educate the University family about the use and abuse of drugs and alcohol and to influence the choice to maintain a drug and alcohol free lifestyle. Program efforts include on-site counseling, referral, and treatment. Seminars and workshops are conducted throughout the academic year for all University constituents, as well as for some segments of the community.

The Drug and Alcohol Abuse Program is located in the Student Health Center. Office hours are from 8:00 a.m. to 5:00 p.m., Monday through Friday, and by appointment after 5:00 p.m. and on weekends.

THE TAVIS SMI LEY SCHOOL OF COMMUNICATIONS

The School 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. Prepare students for further study toward the Ph.D. degree.
2. Train students in the techniques applied by mass communication media so that students may enter communication fields as practicing professionals with a potential for upward mobility.
3. 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.

## 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 twentyone (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) wherein will be Communications 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.
- 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.
- Non-thesis option: Completion of a full-time internship in the media industry (Telecommunications Administration).


## CURRICULUM SUMMARY 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 Plan 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

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.

## ALLOCATI ON OF THI RTY-THREE SEMESTER CREDIT HOURS 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) .................................................................... 15 SCH

J ournalism Track
JOURN 539 (3) JOURN 542 (3) JOURN 550 (3) J OURN 571 (3) J OURN 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

## 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 Course Requirements

1. Core Courses (Required) ....................................................................... 24 SCH CM 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
TC 538 (3) TC 562 (3) TC 563 (3)
TOTAL

## COURSE DESCRI PTI ONS COMMUNI CATI ONS

$\qquad$ 36SCH

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; operation 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)

## J OURNALI SM

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

## GRADUATE

JOURN 531 SEMI NAR 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 JOURNALI SM SEMI NAR (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 COMMUNI CATI ON 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 TRAI NI NG (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 CRI TI CISM (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.

## TELECOMMUNI CATI ONS

## 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 EMERGI NG 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 BROADCASTI NG (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 I NTERNATI ONAL BROADCASTI NG 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 decisionmaking 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 SEMI NAR (3) An in-depth examination of broadcasting, reviews practices, impact, audience behavior and other factors.
TC 562 ALTERNATIVE COMMUNI CATI ONS MEDI A 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)

## ALLOCATI ON OF THI RTY SEMESTER CREDIT HOURS COURSE REQUIREMENTS

$\qquad$
CM 533 (3) CM 534 (3) CM 634 (3) CM 698 (6)
Major Courses (Required)..................................................................................... 15 SCH
Journalism Track
JOUR 531 (3)** JOUR 539 (3) JOUR 542 (3)**
JOUR 571 (3) JOUR 590 (3) ELECTIVE (3)
Speech Track

SC543 (3) SC 549 (3)
SC 551 (3)** SC 552 (3)**

## Telecommunications Track

TC 538 (3) TC 539 (3)
TC 562 (3)** TC 590 (3)

SC 550 (3)**
ELECTIVE (3)
TC 561 (3)**
ELECTIVE (3)

TOTAL
30 SCH

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.

## ALLOCATI ON OF THI RTY-THREE SEMESTER HOURS COURSE REQUI REMENTS

## Core Courses (9 SCH required)

CM 533 (3) CM 534 (3)
CM 634 (3)
Major Courses (Required)* 24 SCH

## J ournalism 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)** SC 552 (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 REQUI REMENTS

## MASTER OF ARTS IN COMMUNICATI ON

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 (33) 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.
- Non-thesis option: Satisfactory performance on the written comprehensive examination after completion of the required course-work. Students in the Telecommunications 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.


## CURRI CULUM SUMMARY

## Master of Arts in Communications

The Department of Communications offers two programs leading to the Master's degree:
Plan A | Master of Arts degree - a minimum of thirty (30) semester credit hours of coursework, including thesis.

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 DESCRIPTI ONS 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.

# THE COLLEGE OF LI BERAL ARTS \& BEHAVI ORAL SCI ENCES 

## ENGLISH

The mission of the Master of Arts in English at Texas Southern University is to provide specialized instruction in literature, language, and research in order to prepare students for further graduate study, the teaching of English, and other professional endeavors. The program emphasizes literary studies. The degree plan requires students to successfully complete all the core courses and 21 semester hours of course work in (1) literary theory and criticism and (2) genre studies

The objectives of the program are as follows:

1. Provide an historical survey of literature, with a reading concentration on British, American, or African-American literary works;
2. Analyze the various approaches and theories of literary criticism;
3. Introduce the techniques of independent graduate-level research, with emphasis on bibliographical studies and textual criticism;
4. Research, analyze, and write in depth on complex literary topics and significant texts at a level suitable for publication in a refereed literary journal.

## ADMISSION CRITERIA

Applicants to the program must meet admission requirements of both the Graduate School and the English Department of TSU. The requirements for admission to the graduate English program are as follows:

1. A cumulative grade-point average of 2.75 in general undergraduate studies and 3.0 in English studies
2. Completion of 12 semester hours in foreign language(s)
3. A GRE score that meets Graduate-School requirements

Students with fewer than 21 undergraduate hours in English must enroll in specified undergraduate courses to remove noted deficiencies. Having remedied noted deficiencies, the student may reapply for admission to the program.

## DEGREE REQUIREMENTS

There are two tracks leading to the granting of the Master of Arts in English. Track A (thesis option) is designed for students who anticipate pursuing graduate study beyond the Master's degree. Track B (non-thesis option) is designed to prepare candidates for entry to the professional world or further graduate study.

1. Students who have not passed the writing portion of the GRE at the level specified by the Graduate School must successfully complete English 501 during their first year of graduate study.
2. Students must complete a total of 36 semester credit hours. With permission from the Chair, students may count up to 6 hours of 400 -level English courses designated as senior/graduate towards the 36 -hour course requirement.
3. Students must maintain a 3.0 cumulative average, with no more than 6 hours of courses with grades lower than B-; grades of C- or below cannot be used to satisfy degree
requirements.
4. Students must successfully complete 30 credit hours of course work and pass a comprehensive examination before undertaking the thesis.

## Master of Arts in English Degree Plans

The English Department offers two options leading to the Master of Arts degree:

1. Track A - Masters of Arts degree (thesis option - 30 semester credit hours +6 research hours for thesis) - in literature study with an emphasis in American, AfricanAmerican, or British literature.
2. Track B - Masters of Arts degree (non-thesis option - 36 semester credit hours for non-thesis) - with a generalist concentration in literary studies. With the approval of the Department Chair and the instructor, the student will devote three credits to a "Directed Reading and Research" course resulting in two or more longer papers.

Both the MA degree (thesis option) and the MA degree (non-thesis option) are designed to prepare students for entry to the professional world or further graduate study.

## Master of Arts Degree, Track A (thesis option)

In order to earn a Master's degree in English under Track A, a candidate must complete the following departmental requirements:

1. Thirty hours of graduate work in English exclusive of English 837 (Thesis in Progress), with an emphasis in African American, American, or British literature)

Required Core Courses: English 502, 533, and 638
2. Evidence that the student either has passed at least twelve semester hours of a foreign language or has a reading knowledge of some foreign language (such competency to be certified, through examination, by the Department of Foreign Languages)
3. A written comprehensive examination
4. End of program assessment that includes a comprehensive test, portfolio, and research completion and evaluation
5. An acceptable thesis based on an investigation of a subject approved by the Department and the University Graduate School
6. An oral defense of the thesis before the committee of graduate faculty advisors
7. A completed thesis approved by the University Graduate School

## Master of Arts Degree, Track B (non-thesis option)

In order to earn a Master's degree in English under Track B, a candidate must complete the following departmental requirements:

1. Thirty-six hours of graduate work in English for a general concentration in literature Required Core Courses: English 502, 533, and 638
2. Evidence that the student either has passed at least twelve semester hours of a foreign language or has a reading knowledge of a foreign language (such competency to be certified, through examination by the Department of Foreign Languages)
3. A written comprehensive examination
4. End of program assessment that includes the comprehensive examination, portfolio evaluation, and research completion
5. An acceptable portfolio of at least six seminar-length analyses covering each of the areas of required studies (American, African-American, British, Criticism, Directed Study) with the portfolio to be evaluated by members of the graduate faculty
6. An oral review of the portfolio before the committee of graduate faculty advisors

## Master of Arts in English Two-Year Matriculation Plan

Year One
The student is expected to accomplish the following during the first year:

- Arrange to confer with the Graduate Dean for advisement on specific requirements
- Demonstrate writing proficiency on the GRE or ENG 501
- Fulfill the M.A. Ianguage requirement if you do not have four semesters of a foreign language for your B.A.
- Submit official final transcripts of the B.A. (and any graduate coursework to be transferred) to the TSU Registrar, Graduate School Office, and English Department
- Form a committee of advisors and meet with them at least once a month
- Take English core course requirements as soon as possible
- Successfully complete 18 hours by the end of the first year.

Year Two
The student is expected to accomplish the following during the second year:

- Meet with the committee of faculty advisors to determine needed course work and to meet all degree requirements and obligations, according to the Graduate School schedule
- File a degree plan before the third semester in the program
- Successfully complete the remaining hours of your degree plan
- Schedule and take your oral examination in the final semester
- Turn in the thesis and/or portfolio according to the Graduate School schedule. (This will allow time for the advisors to review and evaluate the work and to schedule a review of the portfolio or a defense of the thesis. This will also allow time for the candidate to incorporate recommended changes into the thesis.)
- Apply for graduation and follow all requirements as established by the University's Graduate School Office.


## ENGLISH GRADUATE CATALOG

COURSE DESCRIPTIONS ENGLISH
ENG 501 GRADUATE PROFESSIONAL WRITING (3) A course for students who have not achieved writing proficiencies appropriate for graduate work, including the master's thesis and doctoral dissertation. (Prerequisite: graduate standing)

ENG 502 CORNERSTONE SEMI NAR (3) An intense and comprehensive period-based survey of literature from the ancient through the modern and the post-modern. Identified as a core course for the graduate degree in English. (Prerequisite: graduate standing)

ENG 529 STUDIES IN LITERARY BIOGRAPHY AND NON-FICTION (3) A study of the relationship of author and text in the works of notable British and American writers. (Prerequisite: graduate standing)

ENG 530 AFRICAN AMERICAN FICTION (3) An examination of the literary presentation of the passage from slavery to free personhood in selected texts of African American fiction, with a special concentration on rhetorical structure. (Prerequisite: graduate standing)

ENG 532 AFRICAN AND AFRICAN DIASPORA LITERATURE (3) A study of selected poetry, fiction, and drama of Africa and the African Diaspora. (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. (Prerequisite: graduate standing)

ENG 629 SEMI NAR IN AMERICAN LITERATURE (3) A special topics course focusing on American poetry, drama, and fiction. (Prerequisite: graduate standing)

ENG 638 SURVEY OF LITERARY THEORY (3) An historical survey of theories of literary criticism from Aristotle to the present. (Prerequisite: graduate standing)

ENG 640 SEMI NAR IN CHAUCER, SHAKESPEARE AND MI LTON (3) An intense study of all the major works of Chaucer, Shakespeare, and Milton as the lynchpins of British Literature. (Prerequisite: graduate standing)

ENG 732 THE AMERICAN NOVEL (3) A study of selected American novelists in conjunction with modern critical theories. (Prerequisite: completion of all required core courses)

ENG 734 SEMINAR IN MODERN POETRY (3) An examination of the primary trends in modern 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. (Prerequisite: completion of all required core courses)

ENG 735 THE BRITISH NOVEL (3) An intensive survey of the British novel from Defoe through the authors of contemporary British fiction. (Prerequisite: completion of all required core courses)

ENG 736 STUDIES IN BRITISH LITERATURE TO 1900 (3) A study of British poetry, drama, and prose from Shakespeare to the era of modernism. (Prerequisite: completion of all required core courses)

ENG 835 DI RECTED READI NG AND RESEARCH (3) An individualized course for students wishing to work with a specific professor in a well-defined area of scholarship. (Prerequisites: completion of all required core courses and the consent of both the Department Chair and the instructor)

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 Fine Arts (Performing Arts/Music). The Department seeks to achieve the following objectives through its academic program:

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

## ADMISSI ON 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 REQUI REMENTS Master of Arts in Fine Arts <br> (Performing Arts/ 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.

## CURRICULUM SUMMARY <br> Allocation of 30 Semester Credit Hours <br> Course Requirements

## 1. Required Courses 25 SCH

Applied Music 512 (1) Applied Music 522 (2) Applied Music 523 (2)
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

* "Foreign Language Requirement-Each student must satisfy the foreign language requirement
by passing a Foreign Language Examination (Reading Knowledge) or taking a Foreign Language course as advised by the major advisor. Students who have taken a foreign language course as an undergraduate may be exempted from the Foreign Language requirement".

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

## COURSE DESCRI PTI ONS

MUSAP 511-514; 521-524 APPLIED VOICE $(1,2)$ Graduate courses designed to teach the ad-vanced 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 APPLI ED ORGAN (1, 2) Graduate courses in advanced study of solo organ repertoire.

MUSAP 511-514; 521-524 APPLIED PI ANO (1, 2) Graduate courses in advanced study of piano techniques and repertoire.

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

MUSIC 640 INDEPENDENT STUDY IN ORCHESTRATI ON \& 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 (1) 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 (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.

## 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 these 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 REQUI REMENTS

1. Degree requirements for a M.A. in history:
A. Thesis option: Complete thirty (36) semester hours of graduate work (fifteen (15) semester credit hours of required courses; six (6) semester credit hours of M.A. Thesis credits; fifteen (15) semester credit hours of electives, only 6 hours of which may be 400 level courses) 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 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, only 6 hours of which may be 400 level courses) with a grade point average of at least 3.0; demonstrate competency in functional English; pass a comprehensive exam over course work in history.

CURRI CULUM SUMMARY Allocation of Thirty Semester Hours Thesis Option

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

HIST 631 (3) HIST 632 (3) HIST 734 (3)
HIST 750 (3) HIST 755 (3)
2. Electives........................................................................................................ 15 SCH
3. Thesis ............................................................................................................... 6 SCH

HIST 790 (3) (This course must be taken twice, in two consecutive semesters)
Non-Thesis Option

1. Core Courses (Required)

15 SCH
HIST 631 (3) HIST 632 (3) HIST 734 (3)
HIST 750 (3) HIST 755 (3)
2. Electives

21 SCH

## COURSE DESCRI PTI ONS

## Advanced Undergraduate/ Graduate

HIST 420 CAPSTONE SEMI NAR (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. (This course may not be taken for graduate credit).

HIST 430 TOPICS IN U. S. HISTORY (3) Directed readings course that may be repeated for up to six (6) hour credit. Topics examine theme in the history of the United States.

HIST 431 TOPICS IN EUROPEAN HISTORY (3) Directed readings course that may be repeated for up to six (6) semester credit hours. Topics examine themes of European civilization.

HIST 432 TOPICS IN WORLD HI STORY (3) Directed readings course that may be repeated for up to six (6) semester credit hours. Topics examine themes in the history of societies and cultures throughout the world.

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 II, 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 U.S. HISTORY (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, as topics vary.)

HI ST 533 READI NGS I N EUROPEAN/ WORLD HI STORY (3) Directed readings on specified topics in European or World history. (This course may be taken more than once, but no more than three [3] times, as topics vary.)

HIST 581 READI NGS I N AFRI CAN HISTORY (3) Directed readings in selected areas of African History to introduce the student to the themes and concepts of African History.

HIST 582 SPECI AL 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, as topics vary.)

HIST 630 PROBLEMS IN U. S. HISTORY (3) Directed readings on specified topics in U. S. history. (This course may be taken more than once, but no more than three [3] times, as topics vary.)

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 633 PROBLEMS IN AFRICAN DIASPORA HISTORY (3) Directed readings on specified topics in the history of the peoples of the African Diaspora. (This course may be taken more than once, but no more than three [3] times, as topics vary.).

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 SI NCE 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 SEMI NAR 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 QUANTITATI VE METHODS IN HISTORY An introduction to quantitative research techniques appropriate to historical research methodology.

HIST 790 M.A. THESIS IN HISTORY (3) This course addresses the conception and design of a research project, the process of research, and the organization and writing of a M.A. thesis. Students must enroll in the class for two consecutive semesters. ( 3 credit hours per semester).

## GRADUATE COURSES IN ECONOMI CS

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 J esse H. J ones School of Business.

## COURSE DESCRI PTI ONS

ECON 620 ECONOMIC THEORY AND POLICY (3) An accelerated one-semester principles course emphasizing micro- and macro-economic 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 humanity'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.

## ADMISSI ON REQUI REMENTS

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 specific discipline track. Students entering the graduate program during the fall semester must register for HSCS 510 and English 501 (if required) or a specialization course. Those entering during the spring semester are advised to enroll in English 501 and a specialization courses,
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 Child and Family Development, Foods and Nutrition, or Human Services and Consumer Sciences.

## DEGREE REQUI REMENTS

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 or Plan B must meet the general requirements for all graduate students as prescribed in this bulletin. The chair of the department and the program advisor prior to submission to the Graduate School must approve degree plans. Additionally, any identified content deficiencies must be removed as advised.

PLAN A
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 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)
15 SCH
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
```

*Students who score 3.5 or higher on the writing section of the GRE are exempt from Eng 501.
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.


#### Abstract

3. Electives or Cognates................................................................................ 3 SCH

TOTAL $\qquad$ 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. It further provides a non-thesis option.

## Allocation of Thirty-Six Semester Credit Hours 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 (3)
        HSCS 534 (3) HSCS 760 (3)
```

2. Major Course (Required or as advised) ..................................................... 15 SCH

Specialization 600 level Specialization 500 level
Specialization 600 level Specialization 500 level
Specialization 500 level

1. At least fifteen (15) semester credit hours in one of the following fields:

- Child and Family Development
- Foods and Nutrition
- Human Services and Consumer Sciences

2. Human Services and Consumer Sciences majors must complete at least six semester credit hours in each of two fields.
3. One 400* course may be substituted for three semester credit hours of graduate credit in this block.
4. Electives or Cognates.

6 SCH
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.

CFDEV 532 LANGUAGE COGNITION \& DEVELOPMENT I N EARLY CHI LDHOOD (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 CHI LDHOOD (3) Examination of the pro-cess 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 \& KI NDERGARTEN ADMI NISTRATI ON (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 I NFANT 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 CHI LDREN (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.

## FOODS AND NUTRITION 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. (Prerequisites: 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 labora-tory 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* ORGANI ZATI ON MANAGEMENT OF FOOD SERVI CE 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 EQUI PMENT SELECTION MAI NTENANCE \& 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 SCI ENCES

HSCS 434* INDIVIDUAL \& FAMI LY 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 FAMI LY (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

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

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.

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.

HSCS 635 CURRENT TRENDS IN HUMAN SERVICE \& CONSUMER SCIENCES (3) Study of recent advances and current research related to consumer behavior and 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)

## MASTER OF ARTS DEGREE PROGRAMS 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 lifestyles 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 processes, development, maturation, behavior, psychological health, and the acquisition of a unifying philosophy of life. The purposes of the Department of Psychology have been translated into specific objectives as follows:

1. Provide 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. Establish the tolerance that derives from understanding the principles of human behavior and individual differences.
3. Develop in students the competencies needed for the practice of school psychology.
4. Develop in students the competencies needed to provide psychological services in a variety of urban settings.
5. Provide 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 CLI NI CAL- COMMUNI TY 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 Licensed Psychological Associate (LPA) 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 sixty (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), and an internship of not fewer than 1,200 clock hours, of which 600 must be in a public school. Upon completion of this program and an acceptable score on the National School Psychology Exam, students are eligible to apply for licensure as a Licensed Specialist in School Psychology from the Texas State Board of Examiners of Psychologist.

## GRADUATE PROGRAM ADMI SSOI NS

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 judgment 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. Non-psychology majors or minors may be required to take undergraduate prerequisites as a part of their first year of enrollment. The department considers every piece of information carefully. Students are selected on the basis of their record of academic achievement, GRE scores, letters of recommendation, and relevant experience.

## UNCONDI TI ONAL ADMI SSI ON

1. Undergraduate grade point average of at least 2.5 or an average of 3.0 on the last sixty (60) hours.
2. Applicants must present a Graduate Record Examination (GRE) of at least a score of 800 (combined verbal and quantitative). IS THIS LEGAL?
3. The following socioeconomic variables will be considered:
a. Economic status of family when applicant attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Geographic location in Texas of applicant's high school.
h. Geographic region of applicant's high school.
i. Applicant's demonstration of performance in community to a particular field of study.
j. Applicant's demonstration of 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.
I. The applicant's performance during a personal interview.
4. Present a minimum of twelve (12) semester credit hours of undergraduate psychology, including a course in Statistics and Social Psychology.
5. Present a score of at least 213 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.

## CONDI TI ONAL ADMI SSI ON

The Department of Psychology may grant conditional admission status to applicants who 1) graduated from an unaccredited college or university, IS THIS CORRECT? 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 twelve (12) semester hours of course work. Failure to do so may result in the student being dropped from the program.

## DEGREE REQUI REMENTS

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 analytical writing score of 3.5 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 ClinicalCommunity Psychology program, or the requirements for the School Psychology program.

## CANDI DACY

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 twelve (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.

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

1. Required Courses 39 SCH
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 535 (3) Psy 536 | (3) Psy 537 | (3) |  |
| :--- | :--- | :--- | :--- |
| Psy 630 (3) | Psy 633 | (3) Psy 634 | (3) |
| Psy 635 (3) Psy 636 | (3) Psy 733 | (3) |  |
| Psy 832 (3) Psy 833 | (3) |  |  |

* ( N ) represents the number of course credits

> CURRI CULUM SUMMARY
> Master of Arts Degree
> School Psychology
> Total Credits Required: 60

1. Required Courses $\qquad$ 60 SCH

| 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) |
| SOC 623 | (3) SPED 556 | (3) Psy 637 | (3) |
| Psy 730 | (3) COUN 733 | (3) Psy 733 | (3) |
| Psy 735 | (3) Psy 834 | (3) Psy 899 | (6) |
| EDAS 800 | (3) |  |  |

## COURSE REQUIREMENTS

## 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.

## PSY 532 - Individual Testing (3)

The administration, scoring, interpretation, and the reporting of the results of the major individual test of intelligence including the Welcher Scales, Standford Binet, K-ABC, and selected individual achievement test.
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 (12) 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 underlying 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 (12) 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 it related to the mental health of 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 thirty (30) hours of approved graduate work and consent of the cooperating agency. This course may be repeated one time for credit.

## 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 thirty (30) hours of approved graduate work and consent of the cooperating agency. This course may be repeated one time for credit.

## PSY 737 - 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 thirty (30) hours of approved graduate work and consent of the cooperating agency. This course may be repeated one time for credit.

## 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 hour 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
PSY 899 - I nternship

## SOCIOLOGY

The Department of Sociology at Texas Southern University offers the Master of Arts Degree with an emphasis on Social Inequality. Consistent with the University's focus on "urban programming," the Master of Arts Degree in Sociology emphasizes research into the complex social problems experienced by diverse urban populations, public responses to these problems in America and elsewhere, and the practical application of data in ameliorating or improving the condition of urban populations. While students are trained with an emphasis on sociological theory and methods, this program intensely addresses substantive topics such as inequality in education, employment and health as well as poverty, discrimination, and the role of media in these conversations. In addition to coursework in Social Inequality, optional coursework is offered which emphasizes the training of students who will apply their sociological skills in non academic professions on the local, state, and national levels. Ultimately, the Master of Arts Degree in Sociology at Texas Southern University emphasizes research in urban environments which produce data to be used in understanding and addressing the lived condition of varied urban populations. Toward that end, this program seeks to accomplish the following objectives:

1. Prepare graduates for successful transition into doctoral programs.
2. Prepare graduates for careers in applied sociology professions.
3. Provide graduates with the requisite skills to conduct sociological research in urban areas.

## ADMI SSION 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 Master of Arts program in Sociology are expected to have completed an undergraduate major or minor in sociology or a related discipline. Students who do not meet these criteria may be required to enroll in undergraduate Sociology courses before being fully admitted into the program. All application materials should be submitted to the Texas Southern University Graduate School, not to the Department of Sociology. The Department of Sociology Graduate Program Committee will review all applications and make recommendations to the Dean of the Graduate School.

## DEGREE REQUIREMENTS

1. Degree requirements for a M.A. in Sociology:
A. Thesis option: Completion of thirty (36) semester hours of graduate work which includes twelve (12) semester credit hours of required courses with a grade point average of at least 3.0; twelve (18) semester credit hours of electives, with a grade point average of at least 3.0; successful completion of six (6) thesis hours; demonstration of competency in functional English; and the successful defense of a thesis.
B. Non-Thesis Option: Completion of thirty-six (36) semester credit hours of graduate work which includes twelve (12) semester credit hours of required courses with a grade point average of at least 3.0; twenty-four (18) semester credit hours of electives, with a grade point average of at least 3.0; successful completion of six (6) internship hours; demonstration of competency in functional English; successful completion of a written comprehensive exam; and successful completion of a oral comprehensive.

# CURRICULUM SUMMARY Allocation of Thirty Semester Hours Thesis Option 

1. Core Courses (Required) ..... 18 SCHSOC 525 (3) SOC 554 (3) SOC 557 (3) SOC 559 (3)SOC 899 (6)2. Electives18 SCH
Non-Thesis Option
2. Core Courses (Required) ..... 18 SCH
SOC 525 (3) SOC 554 (3) SOC 557 (3) SOC 559 (3)
SOC 655 (6)2. Electives18 SCH

## COURSE DESCRIPTIONS

SOC 525 FUNDAMENTALS OF SOCIOLOGY (3) Introduction to central concepts, methods, and professional practices in sociology; development of basic skills used in theoretical and empirical work; and orientation to the discipline and this department of sociology.

SOC 530 TOPICAL SEMI NAR (3) An analysis of contemporary sociological issues affecting individuals and groups in a rapidly changing Society.

SOC 532 SOCIOLOGY OF RELIGION (3) Examination of social dimensions of religion, the relationship between religion and society, sociological theories of religion, religious organization and behavior, religion and social change, secularization and the future of religion.

SOC 539 URBAN SOCIOLOGY (3) Social and demographic characterization and organization of urban communities with emphasis on techniques of identifying structures, institutions, systems and leadership.

SOC 545 SOCI OLOGY OF THE FAMI LY (3) Key concepts and processes of family sociology with application to sexuality, partner selection, transition to parenthood, parenting and children, housework and paid work, domestic violence and child abuse, divorce and marriage, grandparenting, care giving, and alternative families.

SOC 554 SOCIOLOGICAL STATISTICS (3) Advanced statistical methods with emphasis on multiple regression techniques.

SOC 557 SOCI OLOGI CAL THEORY (3) Examination of the major theoretical orientations in sociology, with special attention given to the early history of conflict theory, functionalism, and symbolic interaction.

SOC 559 URBAN RESEARCH METHODS (3) Examination of urban indicators, research design, and field problems in urban research.

SOC 623 SOCIAL PSYCHOLOGY (3) Examination of selected social psychological theories
and their current role and status.

SOC 632 BLACK SOCI OLOGY (3) Examination of African and African American contributions to the development of social scientific knowledge.

SOC 634 CRI MI NAL JUSTI CE AND THE URBAN COMMUNITY (3) Critical analysis of the subsystems of the criminal justice system and their impact on the urban community.

SOC 639 URBAN POLITICAL SOCIOLOGY (3) The application of sociological theory and analysis to political processes and systems in urban settings.

SOC 655A INTERNSHIP (3) Supervised work and instruction in formal organizations relevant to the student's area of specialization. Must take part A \& B for credit.

SOC 655B INTERNSHIP (3) Supervised work and instruction in formal organizations relevant to the student's area of specialization. Must complete part A \& B for credit

SOC 710 SOCI AL STRATI FICATI ON (3) Theoretical analysis of how social class, status, and power shape social relations, determine life chances, and affect attitudes, opinions, and political choices of individuals and groups; processes that perpetuate systems of class, gender, and race inequality, and degree of social mobility in societies.

SOC 715 SEXUALITY AND SOCI ETY (3) Social construction of sexuality examines the ways in which human groups attach meaning to emotions, desires, and relationships; Sexuality across the life course, including dating, varieties of sexual relationships, birth control and procreative technologies, sexually transmitted diseases, and HIV/AIDS.

SOC 720 CLI NI CAL SOCI OLOGY (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 PUBLIC AND SOCI AL POLICY (3) Policy analysis, design and implementation issues related.

SOC 750 RACE \& ETHNICITY (3) Analysis of social factors affecting racial and ethnic groups.

SOC 820 FAMI LY THERAPY AND FAMI LY RELATIONS (3) Analysis of various issues in family relations and of the various therapeutic approaches in marital and family therapy.

SOC 840 GERONTOLOGY (3) Examination of sociological theories and analyses relevant to various socio-cultural components of aging.

SOC 857 ADVANCED SOCIOLOGICAL THEORY (3) Advanced analysis of recent developments in sociological theory, including the relationship of theory to empirical research.

SOC 859 QUALITATIVE RESEARCH METHODS (3) Research and project problem definition, research and project design, with a focus on qualitative data.

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 ENVI RONMENTAL 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 THESIS I (3) Project development, data collection and analysis.
SOC 899B THESIS II (3) Project development, data collection and analysis.
SOC 930 SOCI OLOGY OF EDUCATION (3) Mainstream and critical theories of how society shapes the purposes, processes, and organization of schools; current policy issues and sources of national education data, with primary focus on United States elementary, secondary schools, and post secondary schools.

SOC 950 WOMEN IN SOCI ETY (3) A social science examination of women's social, economic, political, and physical condition in contemporary society.

The mission of the College of Education is to prepare exceptional 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 is 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 fortyeight (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 principal 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.

## Curriculum and Instruction

The Master of Education in Curriculum and Instruction is offered at the EC-4, 9-12 levels. For Special Education the degree is offered all levels. The EC-4 options are Early Childhood and Bilingual Education, the 4-8 offers options in Social Studies, Math Science and English Language Arts.

The choice of specializations at the secondary level, $9-12$, is limited to areas currently taught in the secondary school.

Credit in professional development courses taken at other institutions will not count toward certification requirements, but will be considered for degree requirements.

## 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

## MASTER OF EDUCATI ON 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 attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of 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.
I. The applicant's performance during a personal interview.
4. A score of at least 213 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.
a. Economic status of family when applicant attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's has demonstration of 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.
I. The applicant's performance during a personal interview.
4. A score of at least 213 on the TOEFL, if the applicant is a foreign student.

MASTER OF EDUCATION DEGREE REQUIRED FOUNDATION COURSES

## COURSE DESCRIPTI ONS

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 REQUI REMENTS

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 twelve (12) hours of graduate study. Any student who does not receive area approval on the basis of this evaluation will not qualify 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 ADMISSI ON

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 analytical writing score of 3.5 or more may be presented to satisfy this requirement.

In addition, the following factors are considered:
a. Economic status of family when applicant attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of 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.
I. The applicant's performance during a personal interview.
Before receiving their degrees, students must:

1. Secure departmental recommendation to candidacy status for the Master's degree in Counseling Education.
2. Take and pass the College of Education Comprehensive Examination for the master's degree.
3. Complete the semester hour requirements specified for the designated course of study.

## CURRI CULUM SUMMARY

## 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)
or
PSY 532
Total .48 SCH
5.     * Licensure. ..... 6 SCH
COUN 539 (3) or COUN 638 PSY 739 (3)
*48 hours of Counseling or related courses are required for the LPC.
Total ..... 54 SCH
COURSE DESCRI PTI ONS Counseling
COUN 539 INTRODUCTI ON TO 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 ORGANIZATI ON AND ADMI NISTRATI ON OF COUNSELI NG AND GUIDANCE SERVICES (3) Introduction to planning, organizing and administering guidance services in public schools and other agencies.

COUN 733 SEMI NAR 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 Micro counseling 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 I NTRODUCTION TO COUNSELI NG 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 876 I NTRODUCTI ON TO CAREER DEVELOPMENT IN COUNSELI NG (3) The study of techniques and theories used by counselors to assist individuals in making informed choices for future career development.

COUN 890 GROUP COUNSELI NG (3) This course develops knowledge and understanding of current group practices and to organize, facilitate and evaluate groups.

COUN 895 ETHICS AND PROFESSI ONAL 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., C URRICULUM AND I N S TRUCTION

## PROGRAM DESCRIPTION

The Master's program in Curriculum and Instruction is designed to extend training and experiences of certified teachers. The curriculum prepares teachers to produce high academic achievement among culturally diverse urban student populations through attention to 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 allows enrollees to review and benefit from recent research in the preparation of teachers for urban schools.

## PROGRAM OBJ ECTI VES

Persons completing the advanced program in Curriculum and Instruction will demonstrate:

1. Advanced knowledge of methods of teaching language arts.
2. Advanced knowledge of methods 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. Knowledge of current research in Curriculum and Instruction.
8. Proficiency in the different research methods.
9. Proficiency in the use of various statistical tools.
10. Knowledge of how ethnicity impacts learning.

## CURRICULUM SUMMARY M.Ed., Curriculum and Instruction ( 12 Semester Credit Hours)



The choice of specialization areas 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.
Total ........................................................................................................36-42 SCH

MASTER OF EDUCATI ON Curriculum and I nstruction Specializations


## Special Education



## COURSE DESCRI PTI ONS <br> Curriculum \& Instruction

EDCI 501 THE BI LINGUAL CURRI CULUM (3) Familiarizes students with new approaches in the bilingual curriculum: technology, national/state standards included, EC-12.
EDCI 502 CULTURAL FOUNDATI ONS OF BI LI NGUAL EDUCATI ON (3) Familiarizes students with the impact of culture on education and with methodology for teaching in a bilingual classroom, EC-12.

EDCI 520 CURRICULUM DEVELOPMENT IN EARLY CHILDHOOD (3) Examines the theoretical bases of curriculum. Emphasizes designing curriculum appropriate for early childhood. Also includes practical application and evaluation of designed curriculum.

EDCI 521 CREATIVITY IN CHI LD DEVELOPMENT (3) Explores the nature of creativity, the role of the teacher and creative environments. Study of relationship of creativity to curricula areas, and 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 competence in working with parents as members of the learning community.

EDC1 525 FI ELD EXPERIENCE PRACTI CUM IN EARLY CHI LDHOOD (3) Provides practical ex-periences 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 551 MULTI CULTURAL 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 inte-grated 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 606 LI NGUI STIC FOUNDATI ON OF BI LI NGUAL EDUCATI ON (3) Familiarizes students with foundations of bilingual education in the United States with an emphasis on linguistic aspects of teaching. EC-12.

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 701 APPLIED LINGUISTICS (3) Introduces linguistic concepts and contrastive analysis and their applications to practical linguistic situations.

EDCI 727 INDEPENDENT STUDY AND RESEARCH (3) Creates opportunities for students to ac-tively research problems of personal interest.

EDCI 732 PRIMARY/ MIDDLE SCHOOL READING INSTRUCTION (3) Provides opportunities to study instructional methods, laboratory methods, and student-planned learning exercises and materials for improving the teaching of reading in the primary and middle schools.

EDCI 773 RECENT RESEARCH IN TEACHING HIGH SCHOOL SUBJECTS (3) Presents a review of research in secondary school teaching. Provides a 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 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.

## SPECI AL EDUCATI ON

SPED 552 I NTRODUCTION TO EDUCATION OF EXCEPTIONAL CHI LDREN (3) Provides an orientation to mental retardation, learning disabilities, and behavioral disorders. Attention is also given 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 motor responses. (Corequisite: SPED 552)

SPED 554 PROBLEMS IN EDUCATING EXCEPTIONAL CHI LDREN (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 com-petencies relative to national advocacy, legislation and litigation, parent education, and school/community resources.

SPED 556 PSYCHO-EDUCATION INTERVENTION (3) This 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 559 RESEARCH IN SPECIAL EDUCATION (3) Provides master-level students with the basic skills needed to review and conduct research in special education.

SPED 600 INDIVIDUAL PROJ ECT (3) Provides students with an opportunity to increase learning outcomes by participating in an independent project to apply and evaluate effective instructional practices.

## READI NG EDUCATI ON

RDG 574 FUNDAMENTALS OF READI NG INSTRUCTI ON (3) Presents an overview of the basic concepts in reading, a survey of various programs in today's schools, and an appraisal of materials to meet varying needs.

RDG 874 DI AGNOSTICS AND REMEDI AL READI NG INSTRUCTI ON (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., SECONDARYEDUCATION

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 OBJ ECTI VES

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 levels.
2. Proficiency in the development of curriculum.
3. Proficiency in developing and applying different instructional strategies to meet the needs of all children.
4. Proficiency in customizing instruction to raise students' academic performance.
5. Knowledge of the current research in secondary education.
6. Knowledge of various research methods and statistical tools.
7. Knowledge of the ways wherein diversity impacts teaching and learning.
8. Proficiency in use of classroom management skills.

## CURRI CULUM SUMMARY <br> Master of Education in Secondary Education Total Semester Credit Hours: 42

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Major
12 SCH
    EDCI 531 (3) EDCI 540 (3)
    EDCI 583 (3) EDCI 589 (3)
Foundation.........................
    EPSY 831 (3) EDCI 633 (3)
Specialization*
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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.

## M. ED., EDUCATIONALADMINISTRATION

## GRADUATE PROGRAMS

The Department of Educational Administration and Foundations offers the Master's Degree in Educational Administration.

The program prepares individuals who have a strong awareness of their responsibility to serve the public and to carry on educational programs that meet 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.

An essential priority is helping potential administrators and supervisors become humanistic in their approach to problem solving. Special attention centers on the decision-making process and stressing the worth of the individuals who comprise student groups, teaching staffs, and school patrons.

Attention is given to developing educators who can provide a creative approach to educational problems as well as demonstrate proper 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 are flexible and can serve effectively all children in 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.
Advanced issues related to database design, data modeling and normalization, query optimization, functional dependencies, data integrity, and data security. Consent of the instructor. Three hours of lecture per week.

## REQUI REMENTS FOR CERTIFI CATI ON

The Master of Education Degree and/or Professional Certification in the State of Texas is offered in the Department of Educational Administration and Foundations.

1. Master's Degree and Certification in Educational Administration
2. Temporary Assistant Principal Certificate
3. Professional Superintendent Certification

## GENERAL REQUI REMENTS

In addition to meeting the Graduate School's requirements for admission, retention, examinations, candidacy and graduation as listed elsewhere, the student shall: Opportunity for students to do an independent in-depth study on a contemporary topic under the mentorship of a faculty member. Required of students pursuing the Plan B (non-thesis) option. Prerequisites: Completion of 18 semester credit hours including core courses.

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.
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 administered to 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 80 is required for graduation.

## PROGRAM OBJ ECTI VES

The programs in educational administration are designed to develop competencies in the following:

- Knowledge of shaping campus culture and implementation of issues that are shared by community
- Knowledge of communication, collaboration, and mobilization of resources
- Ability to act with integrity and fairness in an ethical manner
- Ability to care, nurture and develop instructional programs that are conducive to learners
- Ability to implement staff evaluation
- Ability to make decisions and problem solve to ensure an effective learning environment
- Ability to apply effective leadership to develop and manage campus budget and resource utilization
- Ability to manage campus physical plant and support systems to ensure safety and effective learning


## Professional Principal's Certificate

1. Master's degree
2. Valid Texas teacher certificate, special education certificate, or vocational certificate, which requires a bachelor's degree.
3. Two years of acceptable classroom teaching experience.
4. Completion of a common core of courses to include:

## 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)

COURSE REQUI REMENTS - (All courses must be approved by Department)

## CURRI CULUM SUMMARY

1. Master's Degree and Certification in Educational Administration 42 SCH
A. Administrative Common Core Area
B. Internship
.6 SCH
E. Foundation Core .9 SCH
D. Electives 3 SCH
2. Master's Degree in Educational Administration Without Certification
A. Administration Common Core Area
.21 SCH
B. Foundation Core ....................................................................... 9 SCH
C. Electives .................................................................................. 12 SCH
3. Certification in Educational Administration (Must have Master's Degree)
A. Administrative Common Core ........................................................................... 24 Sch
B. Internship ........................................................................................................ 6 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 DESCRI PTI ONS

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 PRI NCI PAL AS A SUPERVI SOR (3) Addresses the responsibilities in providing instructional leadership through observation, conferencing and staff development.

EDAS 537 PRINCIPLES OF EDUCATIONAL ADMI NISTRATION (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 FI NANCE 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 PRINCI PLES 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 ADMI NISTRATI ON 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 SEMI NAR IN SCHOOL PROBLEMS (3) Research, analysis, and discussion of current issues and constraints in school administration.

EDAS 738 PROFESSI ONAL 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 SUPERI NTENDENCY (3) Role, functions and characteristics of the school superintendent in urban America. Historical, legal, political, and professional factors discussed.

EDAS 780 PROBLEMS IN EDUCATI ONAL ADMI NISTRATION (3) Identification of current
problems facing school building and central administrators, and the application of research and decision-making.

## M. S., HEALTH \& KINESIOLOGY <br> ...........................................................................

## GRADUATE PROGRAM

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 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 human performance and related courses approved by the Department.
2. A course in Anatomy and Physiology.

## DEGREE REQUI REMENTS

## 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 Human Performance.
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

1. Specialization Area

24 SCH
Required Courses
HED 570 (3) HED 831 (3)
Electives
(3)
HED 532 (3) HED 533 (3) HED 534 (3)HED 536 (3) HED 537 (3) HED 571 (3)HED 572 (3) HED 573 (3) HED 574 (3)HED 575 (3) HED 576 (3) HED 577 (3)HED 639 (3)
2. Professional Development ..... 6 SCH
EDCI 551 (3) EDFD 581 (3) ..... EPSY 831 (3)Required Elective (3)3. Resource Area6 SCH

Taken in related area such as Public Affairs, Psychology, Sociology, Child Development or Human Performance.

## 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 SEMI NAR 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 EDUCATION (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 wellbeing and quality of life.

HED 639 EVALUATI ON AND SELECTI ON 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 REQUI REMENTS <br> Master of Science in Human Performance

The overall requirements for the Master of Science in Human Performance 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 Human Performance, 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 Human Performance 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 Semester Credit Hours Required: 36

1. Specialization Area.................................................................................................................................................................................................. SCH

PE 531 (3) PE 638 (3) PE 831 (3)
Electives
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) PE 833 (3)
2. Professional Development......................................................................................................... SCH
EDCI 551 (3) $\quad$ EDFD 581 (3)
EPSY 831 (3) $\quad$ Required Elective (3)
3. Resource Area 6 SCH

Taken in related area such as Public Affairs, Psychology, Sociology, Child Development, or Health Education.

## COURSE DESCRIPTI ONS <br> 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, Human Performance, 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 approach will be used as the primary technique in methodology in the solution of marketing/management problems.

## CRITERI A FOR ADMI SSI ON <br> DOCTOR OF EDUCATI ON 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 $3.33(B+)$ 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 213 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 attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped to rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region of applicant's high school.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of 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.
I. 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 socioeconomic 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 213 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.
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c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of 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.
I. The applicant's performance during a personal interview.

## ADMISSIONS CRITERIA

## COLLEGE OF EDUCATI ON DOCTORAL PROGRAM

## Doctor of Education Degree (Ed.D.)

Counseling
Curriculum and Instruction Educational Administration and Foundations

Non-negotiable Areas-Applicant must qualify in a minimum of two (2) of the below-listed areas in order to be admitted to the college.

1. GRE score

- Must score at least 350 on the Quantitative/Analytical section IS THIS LEGAL?
- Must score at least 350 on the Verbal section

2. GPA

- Must have at least a 3.25 overall GPA in Master's degree (graduate) coursework


## 3. References

- Must submit three (3) letters of reference
- One (1) letter must be from the immediate, or most recent, supervisor of the applicant
- Two (2) letters must be from faculty members from the last university attended

4. Other criteria specified in H.B. 1641 will be considered.

## ADDI TI ONAL ITEMS NEEDED TO BE CONSI DERED

Writing Sample: Applicant will submit a handwritten writing sample that must be 300600 words; or must score 550 on the verbal section of the GRE or score 3.5 on the analytical writing section of the GRE.
Interview: Applicant will be interviewed by members of the COE Admissions Committee.
Oral Presentation: Applicant will be required to orally present a piece of work to the COE Admissions Committee.
WHICH OF THE TWO SETS OF ADMISSION CRITERIA IS VALID? SHOULD LIST ONLY ONE OR THE OTHER.

DOCTORAL PROGRAMS

## IN URBAN EDUCATI ON

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 re-search, 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 will function: Counselor Education, Curriculum and Instruction and Educational Administration. 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
al Administration and Foundations 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 that 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 six (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.

## ADMI SSI ON REQUIREMENTS

Initial admission to the 60-hour 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 Administration 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 at least 700, at least 350 on the Quantitative/Analytical section and at least 350 on the Verbal section, on the Graduate Record Examination IS THIS LEGAL?; 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 graduate 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 sixty (60) semester hour (SH) credits beyond the Master's Degree is required for the Ed.D. The curriculum includes a twelve (12)-SH foundation core; an eighteen (18)-SH professional knowledge core and eighteen (18) SH (additional hours) in the major; free electives (six [6] SH); internship (six [6] SH); and dissertation (six [6] SH). All students are required to complete a two consecutive summer residency with a minimum of twelve (12) SH. There is a Graduate Residency Requirements of eighteen (18) SH.

Students can satisfy the eighteen (18)-Semester Credit Hour (SH) residency requirements for the Ed.D. Degree in one of several ways. Plans A-C are designed for students who work fulltime as they earn the doctorate degree. Plan A requires that students earn the eighteen (18) SCH during consecutive fall, spring, and summer sessions, earning six (6) SH each session. Plan B requires that students earn the eighteen (18) SH during consecutive spring, summer and fall sessions, earning six (6) SH each session. Plan C requires that students earn the eighteen (18) SH during consecutive summer, fall, and spring sessions, earning six (6) SH each session. Plan D, designed for full-time students, requires that students earn the eighteen (18) SH during any two consecutive sessions. The combinations include fall, spring and summer sessions.

The University will comply with all of the Texas Higher Education Coordinating Board (THECB) 1990 Standards for Ed.D. programs for Educational Administration. 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 appropriate department in the College of Education or the Office of the Graduate School.

ED. D., COUNSELOREDUCATION

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 pro-vides 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 professionals 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.
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.

## SPECI ALI ZATI ON 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.

## ADMISSI ON 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.

The College of Education Core faculty in the major area reviews completed applications, and the names 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. 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 (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 chair and faculty members in the area of planned academic concentration.
7. Make a score of at least 213 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 attended elementary, secondary,
b. and undergraduate school.
c. b. Applicant is first-generation to attend undergraduate school.
d. c. Applicant is first-generation to attend graduate or professional school.
e. d. Applicant is multilingual.
f. e. Applicant was employed while attending undergraduate school.
g. f. Applicant helped rear other children in family.
h. g. Applicant's geographic residence in Texas at time of application.
i. h. Geographic region wherein applicant's high school is located.
j. i. Applicant's demonstration of performance in community activities.
k. j. Applicant's demonstration of commitment to a particular field of study.
l. k. The presence or absence of role models with comparable graduate school training
m . in the applicant's region of residence.
n . The applicant's performance during a personal interview.

# ED.D., COUNSELOR EDUCATI ON CURRICULUM SUMMARY SEMESTER CREDIT HOURS REQUI RED: 60 

1. Leveling courses
2. Foundation Core

12 SCH
EDC1 902 (3) EDCI 931 (3) EDCI 932 (3)
EDCI 980 (3) EDFD 997 (3) EDFD 980 (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
COUN 921 (3) COUN 922 (3) COUN 923 (3) COUN 941 (3) COUN 942 (3) COUN 943 (3) COUN 944 (3) COUN 951 (3) COUN 989 (3) PSY 739 (3)6 SCH
6. Internship ..... 6 SCH COUN 919 (6)
7. Dissertation ..... 6 SCH
COUN 999 (6)

## COURSE DESCRI PTI ONS

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 INDI VIDUAL 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 SEMI NAR II-COUNSELING SOCI AL 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 COUNSELI NG (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 MARRI AGE/ COUPLES COUNSELI NG (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 ADDI CTI ON (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., C U R I C U L M A N D I S T R C T I N

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. Possess ability to build upon 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.
13. Conceptualize and develop a comprehensive research project, utilizing statistical tools, research methods, and theory related to curriculum and instruction.

## PROGRAM OF STUDY

Students without prerequisite credentials must enroll in leveling courses that will not count toward the Ed.D. degree. The program of study includes a minimum of sixty (60) semester hour credits beyond the master's degree. The curriculum includes a fifteen (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 thirty (30) semester hours; free electives (six [6] semester hours); internship (six [6] semester hours); and dissertation (six [6] semester hours). All students are required to complete a two (2) consecutive regular semesters of six (6) semester hours each and a consecutive summer of three (3) semester hours. Twelve (12) semester credit hours must be completed after being admitted to candidacy. Graduate Residency Requirements are a minimum of eighteen (18) SH. Students can satisfy the 18Semester Credit Hour (SH) residency requirements for the Ed. D. Degree in one of several ways. Plans A-C are designed for students who work full-time as they earn the doctorate degree. Plan A requires that students earn the eighteen (18) SH during consecutive fall, spring and summer sessions, earning six (6) SH each session. Plan B requires that students earn the eighteen (18) SH during consecutive spring, summer and fall sessions, earning six (6) SH each session. Plan C requires that students earn the eighteen (18) SH during consecutive summer, fall, and spring sessions, earning six (6) SH each session. Plan D, designed for full-time students, requires that students earn the eighteen (18) SH during any two consecutive sessions. The combinations include fall, spring, and summer sessions. The distribution of the course work taken beyond the master's degree will be as follows:

## CURRI CULUM SUMMARY

1. Foundation Core................................................................................................ 12 SCH
EDFD 902 (3) EDFD 931 (3) EDFD 932 (3)
EDFD 980 (3) EDFD 997 (3)
2. Core Courses ..............
EDCI 921 (3) EDCI 931 (3)

EDCI 939 (3) EDCI 941 (3)
3. Major Courses ..... 15 SCH
EDCI 900 (3) EDCI 944 (3) EDCI 950 (3) EDCI 960 (3) EDCI 985 (3)
4. Free Electives ..... 6 SCH
EDCI 901 (3) EDCI 920 (3) EDCI 927 (3) EDCI 932 (3) EDCI 940 (3) EDCI 983 (3) EDCI 996 (3)
Or another doctoral course approved by the student's advisor.
5. Internship. ..... 6 SCH EDCI 995 (3) EDCI 998 (3)
6. Dissertation ..... 6 SCH
EDCI 999 (6)

NOTE 1: While only Department of Curriculum \& Instruction 900 level electives are shown, the student may elect to enroll in any College of Education doctoral level course (a) approved by the student's advisor and (b) for which the student has satisfied all prerequisites.

NOTE 2: Students without prerequisite credentials must enroll in leveling courses that will not count toward the Ed.D. degree.

12 SCH

## COURSE DESCRIPTI ONS

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 SCHOOLS (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' to actively engage 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 TECHNI QUES 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 941 THE ANATOMY OF THE DOCTORAL DISSERTATI ON (3) Provides a basic step-by-step process for conceiving, developing and writing a dissertation and supports the process with related software. Includes models of outstanding dissertations.

EDCI 942 DIVERSITY EDUCATION (3) Examines philosophies, policies and practices of diversity and how these can be implemented to promote equity and excellence in schools and other entities in a multiethnic society.

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 CURRI CULUM 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 TEACHI NG PRACTICES (3) Presents current trends on effective teaching practices with emphasis 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 EDUCATI ON 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 CURRI CULUM 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 DISSERTATI ON (3-12) Engages students in an intensive study of a selected and approved topic. (Total: 12 credit hours)

ED. D., EDUCATIONAL
ADMINISTRATION AND FOUNDATIONS

The Department of Educational Administration and Foundations 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 REQUI REMENTS

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 to the Graduate School an application for admissions to the department 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 for advisement. The chairperson shall be from the Department of Educational

Administration and Foundations.
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.

## CURRI CULUM SUMMARY DOCTOR OF EDUCATION EDUCATI ONAL ADMI NI STRATI ON TOTAL SEMESTER CREDIT HOURS REQUIRED: 60

1. Leveling Courses ..... 12 SCH
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 ..... 6 SCHEDAS 999

## COURSE DESCRI PTI ONS

EDAS 900 EDUCATI ONAL 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 RELATI ONS 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 ADMI NI STRATIVE 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 ORGANI ZATI ON AND ADMI NISTRATI ON 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 SEMI NAR (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 SEMI NAR 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 SEMI NAR I N EDUCATI ONAL ADMI NI STRATI ON (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 DISSERTATI ON (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 types of problems wherein they apply. Studies that 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 EDUCATI ONAL RESEARCH: CORRELATI ON 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 correlations. (Prerequisite: EDFD 831 or instructor's permission)

EDFD 932 EDUCATIONAL RESEARCH: SIGNIFICANCE TESTS AND STATISTICAL METHODS FOR EXPERI MENTAL DESI GN (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 SEMI NAR (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)

## EDUCATI ONAL 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.

THE JESSE H. JONES

## SCHOOLOFBUSINESS

## OVERVIEW

The Jesse H. Jones School of Business consists of two departments: Accounting and Finance and Business Administration. The School of Business, through the Graduate School, offers the Master of Business Administration and the Master of Science in Management Information Systems.

The School is administratively organized with a Dean, who is assisted by an Associate Dean for Academics, an Associate Dean for Business Student Services, two faculty chairpersons, and support staff. All administrative offices, including departmental offices, are located in the Jesse H. Jones School of Business building.

## MI SSI ON STATEMENT

As the second-largest historically Black university in the United States, Texas Southern University has a unique mission of service to the urban populace. Thus, the primary goal of the Jesse H. Jones School of Business is to educate a diverse population of students from Houston, the state of Texas, and surrounding areas.

The primary thrust of the School of Business centers on undergraduate programs. The mission of the School is to provide professional education essential to those who are preparing for positions of responsibility in business, government, and community-service organizations. The School aspires to local and regional recognition as an excellent school of business. Its faculty is committed to the active involvement of students in their learning, a wide range of intellectual contributions that reflect the diversity and expertise of the faculty, and professional development activities to enhance teaching and learning.

The School is committed to providing students with a background of general knowledge and specialized training in the philosophical, social, ethical, and economic context of a rapidly changing, global, and increasingly multicultural society. Additional developmental experiences are provided through programs designed to develop social and cognitive skills, such as selfconfidence, poise, and verbal and non-verbal communication skills.

Research and public service are 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 valued.

The School's emphasis is on quality teaching supported by research and professional service. A wide range of intellectual contributions that reflect 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 a general management education to individuals, who have aspirations either to advance in their current career or wish to prepare themselves for a completely new career.

Graduates of the MBA program are equipped with:

- An understanding of a broad array of business concepts related to finance accounting, economics, marketing, operations, statistics, and business law.
- Skills that enable the appropriate application of critical, analytical, and strategic thinking to the analysis of and development of solutions to business problems.
- The ability to utilize information technology and systems for effective decision-making, problem solving, and communications.
- Strategies for leading and structuring high performance teams, working cooperatively, and communicating effectively.
- A greater appreciation for workplace diversity, ethical issues facing businesses today, and the challenges of the global marketplace.


## MBA ADMISSI ON PROCESS

1. Students will be admitted to the MBA program once per year, in the fall semester only. There will be no spring or summer admissions. The deadline for submission of all admission materials is July 15 (early submission is encouraged).
2. A complete application consists of the following materials:

- Evidence of a baccalaureate degree from an accredited institution.
- An official transcript of all undergraduate course work.
- An acceptable GMAT score (score must be from a test taken within the last five (5) years of your application date, to be considered).
- A two-page, career-objective essay (including, a description of the applicant's greatest accomplishment and disappointment and lessons learned from the experiences, as well as a brief discussion of post-MBA goals).
- Two confidential letters of recommendation that include applicant's strengths, areas of improvement, and commitment to excellence.
- A current 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. A TOEFL score of at least 550 on the paper based test or 213 on the computer based test or 79 on the Internet based test is required.

3. Only completed applications (containing all required application materials listed above) will be reviewed for admission. Graduate application materials are received by the Graduate School and forwarded to the Jesse H. Jones School of Business for review by a faculty committee. The recommendation of the faculty committee is returned to the Graduate School. The Graduate School will make the final admission decision and notify the applicant of the decision. Prospective students wishing to inquire about their application status should direct questions to the Graduate School, until an official admissions notification is received.

## 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 an acceptable 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 socioeconomic profile used in the admission process.
a. Economic status of family when applicant attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of 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.
I. The applicant's performance during a personal interview.

Conditional Admission: Students who fail to satisfy the unconditional admission criteria may be admitted on a conditional basis. Under 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-hours (60) of course work must be at least 3.25. Students admitted in this category will be required to meet the unconditional admission criteria by maintaining at least a grade of " B " or better in each course in the first twelve hours of graduate work within the first year of enrollment. Failure to do so will result in the student being dropped from the program.

## COURSE REQUIREMENTS

The Master of Business Administration degree requires thirty-nine (39) hours of course work, including 9 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
- Principles of Economics
- Principles of Finance
- Principles of Management
- Statistics
- Operations/Production Management
- Principles of Marketing


## CURRICULUM SUMMARY MBA COURSE REQUIREMENTS

ACCT 631 Seminar in Managerial Accounting ..... 3 SCH
FIN 621 Financial and Economic Analysis ..... 3 SCH
FIN 652 Managerial Finance ..... 3 SCH
BADM 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
BADM 655 Entrepreneurship ..... 3 SCH
ELECTIVES ..... 9 SCH

Nine (9) semester hours of restricted elective courses from the following:

- ACCT 656, ACCT 671, BADM 644, FIN 650, MGMT 646, MGSC 625, MGSC 654, MIS 672, MIS 674, and MKTG 634


## DEGREE REQUI REMENTS <br> Master of Business Administration

The minimum general requirements for the Master of Business Administration degree are:

1. A minimum grade point average of 3.0 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 credit hours of "C" work are accepted toward satisfying graduation and degree requirements.
5. The program must be completed within 6 calendar years.
6. All graduate students are required to score a " 3.5 " or better on the writing component of the GMAT, or 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 DESCRIPTI ONS

## ACCOUNTI NG AND FI NANCE

ACCT 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.

ACCT 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.
Prerequisites: ACCT 231 or ACCT 636
ACCT 636 FI NANCI AL ACCOUNTI NG (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: ACCT 332
ACCT 647 MANAGERIAL AND COST ACCOUNTI NG (3) (CPA 150-Hour Requirement NONDEGREE 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: ACCT 336
ACCT 650 STRUCTURE OF ACCOUNTI NG 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: ACCT 332

ACCT 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: ACCT 332
ACCT 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: ACCT 332

ACCT 656 ACCOUNTI NG INFORMATION SYSTEMS (3) An analysis of the sources, cost and values of accounting information, including analysis and design of computer-based accounting information.
Prerequisites: ACCT 332 or ACCT 631
ACCT 657 SEMI NAR 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: ACCT 433
ACCT 658 ACCOUNTI NG CONTROLS (3) A study of the concepts and roles of accounting controls in a business organization.
Prerequisites: ACCT 631 or 433
ACCT 660 ADVANCED TOPICS IN ACCOUNTI NG (3) The study and research of business consolidations, partnerships, governmental and not-for-profit accounting.
Prerequisite: ACCT 332
ACCT 665 ACCOUNTING INTERNSHIP (3) Faculty-supervised work experience in accounting where written reports are required.
Prerequisite: Graduate Status
ACCT 670 FI NANCI AL ACCOUNTI NG IN HEALTH CARE ORGANI ZATI ONS (3) The study of the techniques of decision making for health care providers, financial management functions and organizations, financial statement analysis, capital management, capital budgeting and processes, financial statistics, financing techniques, and financial analysis of case studies in the health care environment.

ACCT 671 MANAGERIAL AND COST ACCOUNTI NG IN HEALTH CARE ORGANI ZATI ONS
(3) A study of how to use cost information to improve management decision making and the uses of cost accounting information relevant to health care organizations.

FIN 621 FINANCIAL \& ECONOMIC ANALYSIS (3) The business principles using a managerial approach to financial and economic analysis. Covers theories of consumer, firm, and markets with emphasis on managerial decision-making; applied topics include demand estimation, forecasting, exchange rates and exports, and long-term investment.
Prerequisites: ECON 231 and ECON 232 or equivalents; FIN 301, and MGSC 239
FIN 650 I NVESTMENT MANAGEMENT (3) Theory and practice of pricing and evaluation of stocks, bonds, options, futures, and mutual funds. It includes portfolio theory and management and global investments.
Prerequisite: FIN 301 or equivalent
FI N 652 MANAGERIAL FI NANCE (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.

## COURSE DESCRIPTI ONS

BADM 644 GRADUATE BUSI NESS I NTERNSHIP (3) Faculty-supervised business related work experience designed to enhance the knowledge and skills of our students in an applied environment. Progress reports and employer validation are required.
Prerequisite: Twelve (12) hours graduate level coursework in business administration and consent of the instructor

BADM 655 ENTREPRENEURSHIP (3) Issues related to creating, managing, and financing a new business with a focus on product development and entrepreneurial financial planning including business plans and class projects.

BADM 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 inter-group behavior within organizations in the context of technological change, workforce diversity, ethical challenges, and globalization.
Prerequisites: MGMT 300 or equivalent
MGMT 646 GRADUATE SEMI NAR IN MANAGEMENT (3) In-depth exploration of selected topics in organization and management theory.
Prerequisites: MGMT $\mathbf{3 0 0}$ or equivalent
MGMT 670 GLOBAL STRATEGI C MANAGEMENT (3) A cross-functional approach to the analysis of strategic decision making in the context of a global economy.
Prerequisites: MGMT 636; FI N 652; ACCT 631; MKTG 650
MGSC 624 STATISTI CAL ANALYSIS (3) Use of statistical techniques for business research, analysis, and forecasting. It includes regression analysis and other econometric tools and the use of computer software.
Prerequisites: MGSC 239; MGSC 302
MGSC 654 SPECI AL 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. It includes the development of computer software skills.

MKTG 634 MARKETI NG RESEARCH (3) Application of research and analytical decisionmaking techniques to marketing problems.
Prerequisites: MKTG 306; MGSC 239; MGSC 671 or concurrent enrollment
MKTG 650 STRATEGIC MARKETI NG 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 $\mathbf{3 0 6}$ or equivalent

## J URIS DOCTOR/ MASTER OF BUSI NESS ADMI NI STRATI ON DUAL DEGREE PROGRAM

The Juris Doctor/Master of Business Administration (JD/MBA) Dual degree program is designed to broaden career opportunities in the fields of business and law. The program allows students to combine legal training with advanced management study. The Dual degree program intends to prepare students for a wide range of careers, including investment banking, accounting, international trade, industrial relations, corporate law, and management consulting where law and business overlap. Students completing the program will receive a MBA degree from the Jesse H. Jones School of Business and a JD degree from the Thurgood Marshall School of Law simultaneously. The program allows successful students to engage, not only with complex business problems in the corporate environment, but also to take
private and difficult legal issues into account in all business decisions.
The salient features of JD/MBA dual program are:

- The program draws upon the strengths of both the JD program of the Thurgood Marshall School of Law and the MBA program of the JHJ School of Business.
- The program is intended mainly for students who want to obtain mastery in both the legal and business aspects of the corporate world.
- The dual program allows students to take courses that would be cross-credited by both JD and MBA programs.
- The program allows students to take courses in an integrated fashion that are offered by the TM School of Law and the JHJ School of Business in their separate Juris Doctor and Master of Business Administration programs.
- The program allows students to complete requirements for the two degrees in four years instead of five years if pursued separately.
- The dual program adds value to the educational endeavor of professional students by utilizing the existing resources since both the MBA and JD programs are already in existence at Texas Southern University.


## JD/ MBA DUAL PROGRAM ADMI SSI ON PROCESS

The general requirements for the Juris Doctor/Master of Business Administration dual program are:

1. The JD/MBA Dual degree program is open to holders of baccalaureate degrees from accredited colleges or universities. Applicants to the program must meet the entrance requirements and follow the application procedures administered by both the TM School of Law and the JHJ School of Business.
2. Students applying for the dual program must apply after September 1 of the previous year and before April 1 of the following year to be considered for admittance in the fall. Both JD and MBA programs admit students only in the fall semester.
3. Although students may apply for either the MBA or the JD program at any time during their course of study, students must be admitted to both programs before completing either program. Admission to both degree programs under the dual program concept permits the application of credits for one degree toward the other degree. Application to the program will be evaluated by both the TM School of Law and JHJ School of Business.
4. The Dual degree program participants will have to satisfy the same admission requirements as the applicants for stand-alone Juris Doctor and MBA programs.

## COURSE REQUIREMENTS

The Dual JD/MBA Program requires the completion of one-hundred and eleven (111) credithours of business and law courses. A total of eighteen (18) credit-hours of the dual program, approved by each school, will carry dual credit for both degrees. Students must satisfy the curriculum requirements for both the JD and MBA portions of the dual degree. The JD portion of the curriculum consists of eighty-One (81) credit hours. The MBA portion of the curriculum requires thirty (30) credit hours. In effect, the program allows a total reduction of eighteen (18) credit hours of coursework in comparison to standalone JD ( 90 credit hours) and MBA ( 39 credit hours) programs pursued separately.

## CURRICULUM SUMMARY JD AND MBA COURSE REQUIREMENTS

LAW 502 Civil Procedure ..... 4 SCH
LAW 504 Contracts I ..... 3 SCH
LAW 505 Contracts II ..... 3 SCH
LAW 506 Property ..... 3 SCH
LAW 507 Property II ..... 3 SCH
LAW 508 Torts I ..... 3 SCH
LAW 509 Torts II ..... 3 SCH
LAW 530 Criminal Law ..... 3 SCH
LAW 540 Constitutional Law ..... 4 SCH
LAW 900 Lawyering Process I ..... 3 SCH
LAW 920 Appellate Jurisdiction ..... 2 SCH
LAW 930 Lawyering Process II ..... 2 SCH
LAW 640 Business Association ..... 4 SCH
LAW 610 Commercial Law ..... 4 SCH
LAW 601 Criminal Procedure ..... 3 SCH
LAW 600 Evidence ..... 3 SCH
LAW 602 Federal Jurisdiction ..... 3 SCH
LAW 620 Professional Responsibility ..... 2 SCH
LAW 921 Trial Simulation ..... 2 SCH
LAW 650 Wills and Trusts ..... 4 SCH
WRITING SEMINAR/ RESEARCH ..... 2 SCH
LAW ELECTIVES ..... 18 SCH
MASTER OF BUSI NESS ADMI NI STRATI ON (MBA) COURSE REQUI REMENTS ..... 30 SCH
ACCT 631 Seminar in Managerial Accounting ..... 3 SCH
FIN 621 Financial and Economic Analysis ..... 3 SCH
FIN 652 Managerial Finance ..... 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
BADM 655 Entrepreneurship ..... 3 SCH
ELECTIVES ..... 3 SCH
TOTAL COURSE REQUI REMENTS ..... 111 SCH

The following core subjects must be completed as prerequisites to the MBA level courses:

- Financial Accounting
- Principles of Economics
- Principles of Finance
- Principles of Management
- Statistics
- Operations/Production Management
- Principles of Marketing

The JD/MBA dual degree student must meet the graduation requirements of each school individually, including minimum grade point average and time-limit policies.

1. Maintain a 2.0 cumulative GPA in the JD portion of the program.
2. Satisfactory completion of the writing and optional oral defense requirements of the JD portion of the program.
3. Not more than 6 semester hours of "C" work in the MBA portion of the program.
4. Have an average of 3.0 cumulative GPA in the MBA portion of the program.
5. The JD curriculum requires that students register for all required courses on a fulltime basis and in the sequence established by the Law School faculty.
6. Only after the completion of first-year JD curriculum, concurrent enrollment in the courses of either school is permitted.
7. The requirements for the MBA portion of the dual program must be completed within six years of the initial enrollment in the program.
8. All the requirements for the JD portion of the dual degree must be completed within four years from the date of matriculation.
9. The academic regulations of each school, including those related to the minimum GPA and scholastic discipline must be met.
10. The computation of the cumulative GPA in each program (JD and MBA) is based on all the courses that would be taken into consideration to award each degree.
11. The course schedules for the dual program must be approved by program advisors in each areas and each school will establish the procedures for such approvals.

## MASTER OF BUSI NESS ADMI NI STRATI ON WITH CONCENTRATI ON IN HEALTH CARE ADMI NI STRATI ON

The Master of Business Administration with concentration in Health Care Administration is designed to broaden the career opportunities for MBA students in the health care field. Due to the special status of Houston as a major national hub for health care facilities and related industries, the health care concentration in the MBA program allows graduates to pursue opportunities beyond the traditional business areas. The concentration permits the aspiration of business students to involve in the administrative side of the health care area a reality. The existing health administration courses at the College of Pharmacy \& Health Sciences make this concentration possible.

## MBA WITH CONCENTRATI ON IN HCA ADMI SSI ON PROCESS

MBA students with unconditional admission status will only be eligible to pursue this concentration. The students that are currently or previously enrolled in the "Master of Health Care Administration (MHCA)" program from the College of Pharmacy \& Health Sciences and subsequently or concurrently want to pursue the MBA will also be eligible for this concentration if MBA admission criteria are satisfied.

## COURSE REQUIREMENTS

The Students must satisfy the MBA Core curriculum requirements ( 30 credit hours) along with the concentration in Health Care Administration requirements ( 9 credit hours) to complete the MBA degree requirement.

MASTER OF BUSI NESS ADMI NI STRATI ON CORE COURSE REQUI REMENTS....... 30 SCH
ACCT 631 Seminar in Managerial Accounting............................................................ 3 SCH
BADM 630 Managerial Communication ........................................................................ 3 SCH
FIN 621 Financial and Economic Analysis................................................................. 3 SCH
FIN 652 Managerial Finance ..... 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
BADM 655 Entrepreneurship ..... 3 SCH
HEALTH CARE ADMI NISTRATI ON CONCENTRATI ON COURSE REQUIREMENTS ..... 9 SCH [A Total of any three out of five following Health Care Administration Courses]
HSHA 512 Introduction to Health Care Organizations ..... 3 SCH
HSHA 514 Human Resources Management and Labor Relations ..... 3 SCH
HSHA 612 Health Care Law and Bioethics. ..... 3 SCH
HSHA 662 Health Policy Analysis ..... 3 SCH
HSHA 671 Managerial \& Cost Accounting in Health Care Organizations ..... 3 SCH
TOTAL COURSE REQUIREMENTS ..... 39 SCH

The following core subjects must be completed as prerequisites to the MBA level courses:

- Financial Accounting
- Principles of Economics
- Principles of Finance
- Principles of Management
- Statistics
- Operations/Production Management
- Principles of Marketing

DEGREE REQUIREMENTS
Master of Business Administration with concentration in Health Care Administration

The students must meet the minimum general requirements for the Master of Business Administration degree. Additionally, the students pursuing the MBA with concentration in Health Care Administration must meet the academic regulations of both JHJ School of Business and the College of Pharmacy \& Health Sciences including those related to the minimum GPA and scholastic discipline.

## MASTER OF SCI ENCE IN MANAGEMENT INFORMATI ON SYSTEMS

The objective of the MS in MIS program is to educate a diverse group of men and women by providing them with the training in computer-based management information systems. The MS program at Texas Southern University provides tools and techniques to individuals in analyzing the management information functions of planning, organizing, staffing, and controlling in small to multinational business organizations and trains them for managerial positions in the Management Information Systems/Supply Chain Management areas of construction, manufacturing, wholesale/retail, energy, and healthcare industries.

Graduates of the MS in MIS programs are equipped with:

- Required skills in using computers, popular business software and their applications to business.
- An understanding of Supply Chain functions and selected MIS applications in that area.
- Skills required becoming knowledgeable users of at least one commercially available and popular MIS application with SCM focus.
- Skills required for analysis and determination of information requirements, and for developing Management Information Systems using commercially available application generators and packages.
- Thorough understanding to develop and operate efficient and effective supply chain management systems that ensure the delivery of the right product, at the right place, at the right time, in the right quantity, and at a competitive price to the customer.


## MASTER OF SCI ENCE IN MIS ADMI SSI ON PROCESS

1. Students will be admitted to the M.S. program in the fall and spring semesters. The deadline for submission of all admission materials is July $15^{\text {th }}$ and November $15^{\text {th }}$ of each year (early submission is encouraged).
2. A complete application consists of the following materials:

- Evidence of a baccalaureate degree from an accredited institution.
- An official transcript of all undergraduate course work.
- An acceptable GMAT score (score must be from a test taken within the last five (5) years of your application date, to be considered).
- A two-page, career-objective essay (including, a description of the applicant's greatest accomplishment and disappointment and lessons learned from the experiences, as well as a brief discussion of post-MBA goals).
- Two confidential letters of recommendation that include applicant's strengths, areas of improvement, and commitment to excellence.
- A current 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. A TOEFL score of at least 550 on the paper based test or 213 on the computer based test or 79 on the Internet based test is required.

3. Only completed applications (containing all required application materials listed above) will be reviewed for admission. Graduate application materials are received by the Graduate School and forwarded to the Jesse H. Jones School of Business for review by a faculty committee. The recommendation of the faculty committee is returned to the Graduate School. The Graduate School will make the final admission decision and notify the applicant of the decision. Prospective students wishing to inquire about their application status should direct questions to the Graduate School, until an official admissions notification is received.

## Master of Science in Management Information Systems (MS in MI S) Program

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

Unconditional Admission: The applicant must submit an acceptable 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 socioeconomic profile used in the admission process.
a. Economic status of family when applicant attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of 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: Students who fail to satisfy the unconditional admission criteria may be admitted on a conditional basis. Under 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-hours (60) of course work must be at least 3.25. Students admitted in this category will be required to meet the unconditional admission criteria by maintaining at least a grade of " $B$ " or better in each course in the first twelve hours of graduate work within the first year of enrollment. Failure to do so will result in the student being dropped from the program.

## COURSE REQUIREMENTS

The Master of Science in MIS degree requires 33 hours of course work, including 3 hours of elective that allows students to obtain practical training in the MIS area.

The following core subjects must be completed as prerequisites to the M.S. level courses:

- Financial Accounting
- Principles of Economics
- Principles of Finance
- Principles of Management
- Business Statistics
- Operations/Production Management
- Principles of Marketing
- Introduction to Management Information Systems


## CURRICULUM SUMMARY <br> MS IN MIS COURSE REQUIREMENTS

MGSC 625 Supply Chain Management .......................................................................... 3 SCH
MIS 672 Introduction to C ++ or JAVA Programming................................................... 3 SCH
MIS 674 Data Communications.................................................................................. 3 SCH
MIS 675 Database Management Systems.................................................................. 3 SCH
MIS 676 Web Design and Development ..................................................................... 3 SCH
MIS 677 E- Commerce ............................................................................................... 3 SCH
MIS 678 SAP Applications in SCM........................................................................... 3 SCH
MIS 680 Systems Analysis and Development............................................................ 3 SCH
MIS 681 IT Project Management................................................................................ 3 SCH
MIS 685 Management of Information Systems....................................................... 3 SCH


Three (3) semester hours of restricted elective course should be taken from the following:

- MIS 683 and MIS 684

DEGREE REQUI REMENTS
Master of Science in MIS

The minimum general requirements for the Master of Science in Management Information

Systems degree are:

1. A minimum grade point average of 3.0 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 credit hours of " $C$ " work are accepted toward satisfying graduation and degree requirements.
5. The program must be completed within 6 calendar years.
6. All graduate students are required to score a " 3.5 " or better on the writing component of the GMAT, or 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 DESCRI PTI ONS

## MANAGEMENT I NFORMATI ON SYSTEMS

MGSC 625 Supply Chain Management (3) The course will provide an introduction to Supply Chain Management and the role of information systems in managing supply chains. Prerequisite: MGSC 302

MIS 672 Introduction to C++ or Java Programming (3) A review of the programming features of these languages and their application to Object Oriented Programming and development of business applications. These will be offered in alternate semesters.
Prerequisite: MGSC 304
MIS 674 Data Communications (3) Managerial and technological issues related to the operation and maintenance of computer networks. Topics covered include WAN, LAN, Internet and related architectures and protocols.
Prerequisite: MGSC 304
MIS 675 Database Management Systems (3) Database concepts and principles in database design with exposure to a popular relational database like "Oracle."
Prerequisites: MIS 672 or Consent of I nstructor
MIS 676 Web Design \& Development (3) Web applications and design using tools such as HTML, Cascading Style Sheets, JavaScript and DHTML.
Prerequisite: MIS 672
MIS 677 E-Commerce (3) Provides exposure to the use of Internet for business to business communications, logistics and supply chain management, financial markets, digital payments, marketing etc.
Prerequisites: MGSC 625; MIS 675; MI S 676
MIS 678 SAP Applications in SCM (3) Provides exposure to instructor selected SCM modules in SAP
Prerequisite: MIS 675
MIS 680 Systems Analysis \& Development (3) An introduction to concepts and processes for analyzing and determining information requirements and using packages and application generators for system development

## Prerequisites: MIS 675; MIS 678

MIS 681 IT Project Management (3) Approaches to managing IT projects including outsourcing and subcontracting strategies. Students will also be exposed to project management tools
Prerequisite: MIS 680
MIS 683 Current Topics in MIS (3) An instructor selected topic dealing with current issues and/or developments in the MIS area.
Prerequisites: MIS 675; MIS 677
MIS 684 Internship in MIS area (3) Student will perform the equivalent of one long semester or an entire summer internship in the Information Technology area in a carefully selected organization
Prerequisites: Completion of at least 18 Credit Hours of coursework in the MIS program

MIS 685 Management of Information Systems (3) Strategic management of information resources to facilitate corporate competitiveness in the global environment. Capstone course to be taken in the student's last semester of the program.

# COLLEGEOF PHARMACY 

AND

## HEALTHSSCIENCES

## DOCTOR OF PHARMACY POST BACCALAUREATE

The College of Pharmacy and Health Sciences at Texas Southern University offers a postbaccalaureate curriculum leading to the Doctor of Pharmacy (Pharm.D.) Degree, in three separate dynamic educational environments. The environments are on campus, off campus, and online. 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 Doctor of Pharmacy program is accredited by the Accreditation Council for Pharmacy Education.

The practice of pharmacy is undergoing rapid change and is moving from a primarily productfocused 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 AVAI LABI LI TY

There are three avenues for pharmacists to obtain the post baccalaureate Pharm.D. degree at Texas Southern University: (1) On-campus, full-time/part-time option, wherein students attend classes for five (5) semesters; (2) Off-campus, part-time option, wherein students attend classes at the University Center, which is an alliance of six (6) universities, the North Harris Montgomery Community College District, and the private sector; and (3) Online, Internet-based program, called TxPharm., offered as a joint venture by the four colleges of Pharmacy in Texas.

## ADMI SSI ON 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.


## ADMI SSI ON 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
Spring Semester October 1

## REQUIREMENTS FOR POST BACCALAUREATE 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:

$$
\text { Didactic Course Work } \quad 27 \text { SH }
$$

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 REQUI REMENTS

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 (e.g., minilectures 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.


## CURRI CULUM SUMMARY <br> Pharm.D. Program - Post Baccalaureate

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Fall Semester ( First Year)
15 SCH
Pharm 931 (3 SH) Pharm 932 (3 SH)
Pharm 940(4 SH) Pharm 945 (2 SH)
PAS 943 (3 SH)
Spring Semester (First Year)....................................................................................
    Pharm 911 (1 SH) Pharm 930 (4 SH)
    Pharm 933(3 SH) Pharm 941 (4 SH)
    PAS 933 (3 SH)
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    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) Pharm 942-950(4 SH)
    Pharm 981 (4 SH)
Spring Semester (Second Year) ...........................................................................
    Pharm 901 (3 SH) Pharm 914(1 SH)
    Pharm 942-950 (4 SH)
    Pharm 942-950 (4 SH)
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## COURSE DESCRI PTI ONS

PHARM 900 INVESTI GATION 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 INVESTI GATI ONAL 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 SEMI NAR - CLI NICAL 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 SEMI NAR - CLI NICAL 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 CLI NICAL 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 BI OSTATISTICS (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 CLI NICAL 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 PHARMACOKI NETICS (4) The application of pharmacokinetic principles to be utilized in the selection, dosing; dosage adjustments and evaluation of drug therapy of patients.

## EXPERI ENTI AL TRAI NI NG

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 PSYCHI ATRY PRACTICE (4) Provision of Pharmaceutical care to hospitalized and/or ambulatory psychiatry patients

PHARM 950 PEDI ATRICS 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

- Psycho 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
- Clinical Toxicology Clerkship


## MASTEROFSCIENCE <br> I N

 HEALTH CAREADMINISTRATIONTexas Southern University offers a two-year Master of Science degree in Health Care Administration (M.H.C.A.). This pioneer program is jointly sponsored by the Texas Southern University Graduate School and the College of Pharmacy and Health Sciences.

Health care will continue to experience change in the near future as the health care delivery system adapts to services that are sensitive to health management as it changes from a biomedical model to a behavioral model. Navigating this complex, competitive and market driven world of health care requires sophisticated administrative skills. Graduates of our Texas Southern University Health Care Administration Program will be prepared to have these skills.

With the M.H.C.A. degree from Texas Southern University, graduates join a distinguished group of administrators and alumni who demonstrate skill and proficiency as healthcare managers and executives. Health care organizations have long been recognized as being complex organizations. Too few people, including health managers and health consumers, appreciate the complexity of the organizations. A critical part of the solution for health care in America lies in preparing professionals who can manage these organizations and positively impact the health care system. Consequently, the M.H.C.A. program at Texas Southern University is designed to prepare students to focus on improvements in the health care system.

## ADMISSI ON REQUIREMENTS

The Master of Health Care Administration (M.H.C.A.) program requires approximately twentyfour months to complete (including administrative internship) following completion of prerequisite courses in management, statistics, and accounting. Prerequisites must be completed no later than the semester prior to enrollment. Upon being accepted into the (M.H.C.A>) program, students will have a choice of drafting a Thesis or completing coursework to graduate. Students will declare which option they prefer by signing their degree plan designating they select either (Option 1 Thesis or Option 2 Non-Thesis).

Applicants may have undergraduate degree training in disciplines outside of healthcare administration. Applications for admission to the M.H.C.A. program are processed through the University Graduate School.
The Graduate Admissions Committee within the College of Pharmacy and Health Sciences will review all applications and with approval of the Dean of the College of Pharmacy and Health Sciences, the decisions of the Committee will be referred to the Dean of the Graduate School.

Applicants must have graduated with a bachelor's degree (or its equivalent) from an accredited college or university. Applicants must have completed a satisfactory undergraduate sequence of courses.

Applicants must have a strong background in the courses shown below to provide an academic base for advanced studies in health care administration. In addition, prospective students must demonstrate competencies in communications (oral and written) and mathematics. Prerequisite courses may be waived for students who have successfully completed previous course work with a grade of "B" or higher in the following content areas:

- Quantitative Methods in Public Administration
- Public Budgeting
- Finances and Economics of Health Care
- Health Information Systems

Applicants must have a score on the aptitude section of the Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE) acceptable to the Admissions Committee for the Graduate School.

Applicants must have a score of at least 213 on the computer based TOEFL if the applicant is an international student. Applicants must present an essay identifying career goals and objectives, research interest and the relationship of the health care administration program to the candidate's professional goals. Applicants must present three (3) letters of recommendation from persons qualified to evaluate applicants' capability for graduate study, including past scholastic performance, administrative abilities (as applicable), and personal motivation. Applicants must submit a resume detailing educational accomplishments and work experience.

## APPLICATI ON DEADLINE

Students are admitted only in the Fall Semester. Applications for both admissions and financial aid must be received by April 15. The complete application and non-refundable application fee (in accordance with University fee requirements), GRE scores, transcripts, essay, resume, and letters of recommendation, must be submitted by April 15.

CURRI CULUM SUMMARY
GRADUATE PROGRAM-HEALTH CARE ADMI NI STRATI ON

Fall Semester (First Year)......................................................................... 12 Hours HSHA 512 (3) ACCTG 670 (3) HSHA 513 (3) HSHA 517

Spring Semester (First Year) 12 Hours FIN 652 (3) ACCTG 671 (3) HSHA 514 (3) HSHA 511 (3)
Fall Semester (Second Year)........................................................................ 12 Hours

| HSHA 611 | (3) | HSHA 612 (3) HSHA 651 | (3) |
| :--- | :--- | :--- | :--- |


| HSHA 658 | (3) - Option 1 Thesis* |
| :--- | :--- |


| or |  |
| :--- | :--- |
| HSHA 613 | (3) - Option 2 Non-Thesis* |


| Spring Semester (Second Year).............................................................. 12 Hours |  |  |  |
| :--- | :--- | :--- | :--- |
| HSHA 662 | (3) | HSHA 663 | (3) HSHA 652 (3) |
| HSHA 659 | (3) - Option 1 Thesis* |  |  |

Summer Semester (First/ Second Year)........................................................ 4 Hours
HSHA 515 (2) HSHA 516 (2)

* (If selecting Option 1 - Thesis, the student will have to successfully complete courses HSHA 658-659. These courses are necessary requirements for Option1. If selecting Option 2 - Non - Thesis, the students will have to successfully complete courses HSHA 613 \& 614. These courses are necessary requirements for option 2.)


## COURSE DESCRI PTI ONS

ACCTG 670 FINANCIAL ACCOUNTING IN HEALTH CARE ORGANIZATIONS (3) Introduction of financial management techniques to the health care environments. Techniques of decision making for health care providers, financial management functions and organizations, financial statement analysis, capital management, capital budgeting and processes, financial statistics, financing techniques, and financial analysis of case studies.

HSHA 511 I NFORMATI ON SYSTEMS IN HEALTH CARE (3) An introduction to substantive course content that provides basic vocabulary and principles of modern information architectures, computer networking and communication technologies and scientific methods. Areas including cost benefit assessments, social, legal, and ethical problems will be reviewed in the context of technology assessment.
HSHA 512 INTRODUCTION TO HEALTH CARE ORGANIZATIONS (3) A review of U.S. health care organization's beginning with a historical context, systems theory, analysis of organizational components health service disciplines with personnel, national, state and local health trend analysis, quality assurance, and its role in health care organizations, political issues, group projects and field trips.

HSHA 513 QUANTITATIVE METHODS OF HEALTH MANAGEMENT (3) Mathematical, statistical, computer applications and statistical techniques applied decision making in health care hospitals.

HSHA 514 HUMAN RESOURCES MANAGEMENT AND LABOR RELATIONS (3) A review of the application of theories and concepts of organizational behavior to the personnel management function. Topics will include legal and regulatory influences, job analysis recruitment, selection, placement, compensation, performance, improvement and appraisal.

FIN 652 MANAGERIAL FINANCE (3) Application of financial management techniques to decision making for health care providers. Financial management functions and organizations, financial statement analysis, working capital management, present value analysis, capital budget, analysis of local capital management, analysis of local capital budget, cost of capital, variance analysis, financial techniques, case studies, financial analysis.

HSHA 515 PRESENTATIONS FOR HEALTH FORUMS (2) Practice in the application of health presentations, communicating both orally and in writing, appropriate to health care issues, health professionals, groups and public constituencies.

HSHA 516 ANALYSIS OF HEALTH CARE MARKETS (2) Introduction to survey marketing concepts as applied to health services organizations. Consumer behavior, marketing segmentation, target marketing, marketing research, management and control of marketing mix variables.

HSHA 517 HEALTH CARE ECONOMICS (3) Economy methodologies applied to the Health Services, concept of efficiency applied to production and distribution of health services, health insurance, government programs, health care personnel, health services organizations, current health policy issues, and emphasis on individual student application of economic principles to health issues.

HSHA 611 MANAGING MEDICAL CARE ORGANIZATIONS: BASIC APPROACHES IN MULTICULTURAL COMPETENCIES (3) A review of the factors and dynamics that characterize medical care organizations. Examines the role of cultural, social and behavioral factors relevant to the delivery of health services.

HSHA 612 HEALTH CARE LAW BIOETHICS (3) Reviews legal principles influencing health care providers. An overview of basic instruction in contract law, tort law, and anti-trust law. Emphasizes major health care liability producing areas, and interfaces between law and ethics with an in-depth approach to monitoring the moral mission of the institution. Case studies and practitioner support will be emphasized in this course.

HSHA 613 RESEARCH DESI GN, MEGHODS AND ANALYSIS (3) Introduction to the research process and models available to conduct health services research. Topics include: problem identification, computing literature search, critique of research, theoretical and conceptual frameworks, research questions and hypothesis testing, design, methodology, data analysis techniques and ethical issues in research. Prerequisites: HSHA 512 (Introduction to Health Care Organizations), HSHA 514 Human Resource Management and Labor Relations) and knowledge of basic statistics.

HSHA 614 MANAGERI AL COMMUNI CATI ONS (3) Oral presentations and business and technical writing for health services managers. Planning and delivering presentations, preparing reports, correspondence and business and technical writing.

HSHA 651/ 652 ADMINISTRATIVE RESIDENCY (3) A defined and structured field experience which will provide a practical professional relationship with preceptor, up close observation of the management process within health service organizations and the application of theory and techniques.

HSHA 658/ 659 THESIS/ RESEARCH PROJ ECT (3) An intensive research study or selected project on a critical issue of health care administration, giving evidence of a thorough study of original sources, using the information, skills and knowledge obtained throughout the course of study.

HSHA 662 HEALTH POLICY ANALYSIS (3) Analysis of major issues in health services in health are institutions, inclusive of hospitals, medical practices, public health, mental health and professional health education.

HSHA 671 MANAGERIAL AND COST ACCOUNTI NG I N HEALTH CARE ORGANIZATI ONS
(3) Skills in using cost information to improve management decision-making. Emphasizes the use of cost accounting information relevant to health care organizations.

# GRADUATEPROGRAMIN <br> PHARMACEUTICALSCIENCES 

The Pharmaceutical Sciences Graduate Program is housed in the Department of Pharmaceutical Sciences in the College of Pharmacy and Health Sciences (COPHS) and is led by a group of active, productive faculty. Over the last several years COPHS has been developing its research infrastructure, which now has reached the level to adequately support the program. Collectively, the Research Centers in Minority Institutions, the Center for Toxicological Research, and the Center for Cardiovascular Diseases have contributed significantly to the development of research infrastructure in the COPHS.

Doctor of Philosophy degree in Pharmaceutical Sciences with specialization in pharmacology and pharmaceutics are offered through the program. The Ph.D. degree curricula are designed to provide a scientifically integrated training that permits students to:

1. Acquire knowledge and skills that facilitate a comprehensive understanding of the genesis and progression of pathological conditions;
2. Apply knowledge and skills to the discovery, design, development, and delivery of drugs and dosage forms;
3. Be prepared to pursue professional careers in academic, pharmaceutical industry, and governmental settings.

## ADMI SSI ON REQUI REMENTS

## General Requirements

In addition to meeting the requirements and following the procedures for admission to the graduate school, applicants to the Doctor of Philosophy degree programs in Pharmaceutical Sciences must have earned a bachelor's degree in the natural or health sciences. Other specific requirements for admission to the program include:

1. An acceptable combined score on the Graduate Record Examination.
2. An acceptable score in a specialty graduate examination (biology or chemistry).
3. Equivalent quantitative and qualitative measures indicating academic performance acceptable to the graduate admissions committee.

Socioeconomic factors will also be used to determine an applicant's admission status. International students, in addition to the above requirements, must meet the English Proficiency requirements of the Graduate School.

All applicants admitted to the doctorate program must present credits equivalent to required courses within the master's degree program in pharmaceutical sciences. Additional determinants of a doctoral applicant will include review of his or her master's thesis, letters of recommendation, and career objectives by the program admissions committee.

## DOCTOR OF PHI LOSOPHY (PH.D.) DEGREE PROGRAM

Admission to the Ph.D. in Pharmaceutical Sciences program will be granted to students who are judged most likely to achieve eminence in the field. It is anticipated that a small number of students will be granted admission each year. Applicants must hold a master's degree in
life-, biomedical-, or health sciences from an accredited college or university. Persons whose native language is not English will be required to meet the proficiency requirements of the graduate school. In addition to meeting the other general requirements of the graduate school, applicants will be required to:

1. Have an acceptable cumulative grade point average (graduate and undergraduate).
2. Present Graduate Record Examination (GRE) General Test scores.
3. Present credits equivalent to those courses that are required in the Master's program in Pharmaceutical Sciences. (Otherwise, they must satisfy those requirements before achieving candidacy status for the Ph.D. degree.)

The primary objective of the Ph.D. degree program is to train students for advanced careers in pharmaceutical sciences. Specialization with two specific tracks, i.e., 1) Pharmacology, and 2) Pharmaceutics will be offered for the Ph.D. degree. A series of courses in pharmaceutical sciences in the existing entry-level Pharm.D. program offered by the COPHS will be made available to students entering in the Ph.D. program with a M.S. from other institutions as the foundation/leveling courses. Course requirements for a Ph.D. in Pharmacology and Ph.D. in Pharmaceutics are tabulated below while the course descriptions are listed in item D.

## Contingency M.S. Programs in Pharmaceutical Sciences

The Master of Science Degree is awarded ONLY under the following conditions:

1. (a) An unforeseen change in the student's circumstances such as health problems, family situation or relocation. A petition (supported by appropriate documentation) must be filed with the Graduate Steering Committee clearly and fully explaining these circumstances. The Graduate Steering Committee may grant the request on the merit of the situation. (b) A request made under any other circumstance apart from those in la may be granted by the Graduate Steering Committee providing that future stipends shall cease.
2. A decision by the Graduate Steering Committee based on and in concurrence with a decision by student's research adviser and/or research committee to not allow the student to continue in the Ph.D. program.

## Course Requirements for Master of Science Degree

The student must complete a minimum of 40 Cr . HR. for the M.S. degree, including a minimum of 9 Cr . Hr. of thesis. A minimum cumulative grade point average of $3.00(A=4.00)$ must be maintained in all graduate level courses required for the M.S. degree in order to obtain an advanced degree. Graduate level courses are defined as all courses required for the M.S. degree as defined either by the department and/or thesis committee. Additionally, the following requirements must be met:
i. Minimum of one presentation at a national research meeting.
ii. Submission of one research paper to indexed-refereed journal.
iii. Successful public defense of thesis.

Students who have received a grade of C or lower in more than $6 \mathrm{Cr} . \mathrm{Hr}$ of courses that are part of the student's degree plan and who have a GPA less than 3.0 may be dismissed from the program.

## Required Core Courses

Students will be required to follow the course outline schedule for the M.S. degree in

Pharmacology and Pharmaceutics.
The grade in a thesis course is awarded upon the satisfactory completion and acceptance of the thesis. If the thesis is not accepted by the end of the semester or term of enrollment in the thesis course, the student will receive an "R." A student who receives an " $R$ " in a thesis course has up to two calendar years to remove it and it may be removed in or out of residence, subject to the six-year time limit regulation. The thesis advisor may require the student who earned and " $R$ " in a thesis course to re-enroll in the course.

## Thesis Research

The thesis must be approved by the Dean of the Graduate School before final acceptance is given by the Graduate School Office after approval has been given by an approved thesis committee. Prior to preparing a thesis or dissertation, students should obtain a copy of the thesis guidelines from the Graduate School Office.

The thesis must be prepared in accordance with the format and direction set forth in the guideline. Therefore, it is advisable for the student to obtain an experienced typist who is familiar with the typing of theses. Students can avoid many of the problems of obtaining approval of the thesis or dissertation by strictly following the guidelines and carefully proofreading the copy. After the thesis has been approved and accepted by the Graduate school, it will be bound and placed in the University library.

## Thesis Committee

It is expected that the students will normally utilize the first summer and the second calendar year of their M.S. degree program to conduct sufficient original research to write a quality thesis. The quality and the quantity of research expected for the thesis should be sufficient for presentations and publications stipulated in Item 1.1. of the Graduate Student Handbook. The student is intended to master experimental techniques, learn to critically evaluate the scientific literature, have a grasp of what is involved in a sound, independent research project, and assemble intelligently the research results and present it in a manner suitable for presentation to the scientific community.

## CURRICULUM SUMMARY

## Semester Credit Hours Required: Masters Degree Program

1. Foundation/ Leveling Courses
PAS 535 (2)
PAS 537 (3)
2. Core Courses
PHS 801 (3) PHS 814 (3) PHS 802 (1)5 SCH14 SCH3. Additional Courses (Freely Selected)....................................................................... 6 SCHPHS 906 (3) * PHS 808 (3) **PHS 907 (3) * PHS 901 (3) **
3. Elective CoursesPHS 811 (3) * PHS 913 (3) **PHS 812 (3)
4. Research and Thesis. ..... 9 SCHPHS 815 (6)PHS 816 (3)
[^0]
## Semester Credit Hours Required: Doctor of Philosophy Degree Program

1. Foundation/ Leveling Courses 5 SCH
PAS 535 (2)
PAS 537 (3)
2. Core Courses20 SCH
PHS 800 (3) PHS 803 (1) PHS 809 (3) *PHS 801 (3) PHS 814 (3) PHS 908 (3)*
PHS 802 (1) PHS 810 (3) * PHS 808 (3) **
3. Additional Courses (Freely Selected) ..... 9 SCHPHS 906 (3) ** PHS 912 (3) ** PHS 907 (3) ** PHS 901 (3) *PHS 909 (3) ** PHS 911 (3) ** PHS 900 (3) ** PHS 910 (3) **
4. Elective Courses ..... 9 SCH
PHS 811 (3) * PHS 913 (3)**
PHS 812 (3) PHS 904 (3) *
5. Research and Dissertation ..... 36 SCH
PHS 916 (6) PHS 918 (12)PHS 917 (6) PHS 919 (12)* Pharmaceutics Track** Pharmacology Track

## DEGREE REQUI REMENTS

## Requirements for the M.S. Degree:

i. Completion of 40 credit hours of course work.
ii. Minimum of one presentation at a national research meeting.
iii. Submission of one research paper to indexed-refereed journal.
iv. Successful public defense of thesis.

## Requirements for the Ph.D. Degree:

i. Completion of 74 credit hours of course work. ARE THESE IN EXCESS OF THE 40 REQURIED FOR THE MASTERS?
ii. The Qualifying Examination: The purpose of the qualifying examination will be to test the student's level of understanding of basic concepts in the pharmaceutical sciences. This examination will not only be a test of a student's preparation to undertake doctoral work, but also will be used as a diagnostic tool to indicate if further work in any of the these areas will be needed. Until the student passes the qualifying examination, he/she will be limited in the advanced doctoral coursework that he/she can take.
iii. The Comprehensive Examination: The exam is intended to test a student's
mastery of the skills and knowledge that should have been acquired in the program of study. Upon the successful completion of this examination and other graduate school requirements, the student becomes a candidate for the doctoral degree. The examination will be taken at the end of the period of formal course work and study, but prior to the commencement of substantial work on the dissertation. The examination cannot be taken until all credit hour requirements are completed. A candidate will be given two attempts to take and pass the Comprehensive Examination. A doctoral student who fails the comprehensive examination the second time may petition for a third examination. 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 chairperson of the student's doctoral committee, the department head, the dean of the college and the dean of the graduate school must approve the petition. A student who fails to pass the doctoral comprehensive exam or any part of it after the third attempt will be automatically discontinued as a student in the doctoral degree program.
iv. Doctoral 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 Philosophy in pharmaceutical sciences degree program.
2. Satisfy the residency requirement of two consecutive semesters of full-time residence or an approved equivalence.
3. Pass the doctoral comprehensive examination.
v. Dissertation Work and Oral Public Defense of the Dissertation: After achieving candidacy, the advisor in consultation with the candidate will recommend a dissertation committee to the Dean of the Graduate School. The dissertation committee will consist of a minimum of three graduate faculty members with demonstrated expertise in the focus of the dissertation. These three members include the dissertation advisor, one member from an outside institution, and another member will be a graduate school representative appointed by the Dean of the Graduate School. The dissertation advisor will serve as chairman of the dissertation committee. When the dissertation proposal has been approved, the candidate will complete the required research, prepare a dissertation, and make an oral defense to the committee. 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. The dissertation serves a number of purposes and involves the following:
4. Satisfying the academic community.
5. Meeting the university standards.
6. Demonstrating to the supervisory committee that the student is capable of undertaking and successfully completing independent, scholarly research on a problem of significance in Pharmaceutical Sciences.

Therefore, concerted work on the dissertation will not normally begin until the student has passed the comprehensive examination.
vi. Publications: The ability to develop and test scientifically meritorious hypotheses and publish the findings in peer-reviewed, indexed scientific journals is a critical skill for advanced careers in pharmaceutical sciences. The Ph.D. candidate must demonstrate ability in this area by:

1. Making a minimum of two presentations at national research meetings.
2. Publishing a minimum of one paper in a peer-reviewed indexed scientific
journal.
3. Submitting a minimum of one research paper for publication in an indexedrefereed journal.

## Time Limit for the Completion of 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 the program requirements. 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 the 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 satisfying the doctoral degree requirements.

## Readmission

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

## COURSE DESCRI PTI ONS

## PHS 800 BIOETHICS ( 3 credit hours)

The role of codes of professional conduct in the recognition, evaluation and resolution of conflicting ethical principles in research is discussed.

## PHS 801 BIOSTATISTICS ( 3 credit hours)

Application of descriptive and inferential statistical principles to data collection, collation, and analysis.

## PHS 802,803 SEMI NAR/ SPECI AL TOPICS (1 credit hour each)

In this course, students critically review research papers and give presentations on contemporary scientific issues. Outstanding scientists give seminars on research topics.

PHS 804,805 SEMI NAR/ GRANTSMANSHI P ( 1 credit hour each)
Students review and present contemporary issues in /Pharmaceutical sciences. Basic principles of developing a grant proposal will be covered with emphasis on goals/objectives, plan, data analysis, and budgeting.

PHS 806 ADMI NISTRATI ON AND THE SCI ENCES ( 3 credit hours)
This course covers the elements and effective practice of management and administration, including decision-making processes, policy and program development, and selected aspects of behavior in organizations.

## PHS 807 EXPERI MENTAL DESI GN/ I NSTRUMENTATI ON/ CLI NI CAL MEASUREMENTS

 (3cr.hr.)The theoretical and practical applications of literature search, statistics, and planning/design to research development are discussed. It prepares students to employ these tools in solving research problems.

## PHS 808 PATHOPHYSI OLOGY ( 3 credit hours)

A discussion of the definition, classification, etiology, diagnosis, course, prognosis, signs, and symptoms of disease conditions.

## PHS 809 PHARMACOLOGY ( 3 credit hours)

Provides knowledge of all aspects of the interactions of drugs with living tissues. Mechanisms of drug action that underlie the use of drugs for purposes are discussed. (Pre-requisite PHS 808, Pathophysiology and PHS 813 Advanced Biochemistry)

PHS 810 PHYSI CAL PHARMACY ( 3 credit hours)
This course covers proteolytic equilibria and buffer solutions, interfacial phenomena and diffusion coefficient, stability kinetics, complexation and protein binding, and polymer science.

## PHS 811 PHARMACOKI NETI CS ( 3 credit hours)

Processes of absorption, distribution, metabolism and excretion of drugs are discussed. This course also examines the effects of disease, drug dosage forms, and drug doses on therapeutic and toxic responses. (Pre-requisite PHS 810)

PHS 812 ADVANCED BI OCHEMI STRY ( 3 credit hours)
This course explores the mechanisms of action of biological catalysts and effectors with regard to possible means of selective chemotherapeutic control of biological processes.
PHS 813 ADVANCED ORGANIC CHEMI STRY ( 3 credit hours)
This course focuses on the structure and functions of molecules and the application of those parameters to the design and synthesis of organic substances.

## PHS 814 LABORATORY ROTATI ON

This course introduces on-going research projects to students in three laboratories. Students must complete this course before selecting the dissertation advisor.

## PHS 900 BIOSYNTHESIS AND DRUG METABOLISM ( 3 credit hours)

This course describes methods employed in the study/synthesis of natural compounds, biotransformation pathways, and the significance of metabolism in the design of new agents.

## PHS 901 CELL BIOLOGY ( 3 credit hours)

This course conveys an understanding of the molecular basis of cellular compartmentalization, protein/membrane trafficking, cytoskeleton regulation, molecular motors, cell cycle, cell death, signal transduction, cell-cell and matrix-cell communications.

## PHS 902 CYTOLOGY ( 3 credit hours)

This course provides a detailed study of cellular organelles, their physiology, and their role in metabolism and in the development of different diseases. It highlights techniques employed in studying the cell.

## PHS 903 IMMUNOLOGY ( 3 credit hours)

It describes mechanisms of body protection against foreign bodies and antigens. Immunodeficiency syndromes, autoimmunity, allergic responses and vaccine technology are also discussed.

PHS 904 GENETI CS AND PHARMACOGENOMI CS ( 3 credit hours)
The course describes the biology and physiology of genes. It covers the genetic basis of diseases, drug actions/toxicity, and inter-individual differences in responses to drugs.

## PHS 905 ADVANCED MEDI CI NAL CHEMI STRY ( 3 credit hours)

The emphasis of this course is practical synthetic chemistry useful in the preparation of complex polyfunctional molecules.

PHS 906 ADVANCED PHARMACOKI NETI CS ( 3 credit hours)
Application of concepts of drug kinetics to the interpretation of pre-clinical and clinical data. Mathematical derivations of the mass balanced relationships involving rate processes and their physiological importance are discussed. (Pre-requisite PHS 811)

## PHS 907 ADVANCED PHARMACEUTI CS (3 credit hours)

Topics include Preformulation pharmaceutical excipients, solid dosage forms, dispersed systems, microencapsulated formulations, controlled release dosage forms and dermatological and biotechnological-derived products.

PHS 908 ADVANCED DRUG DELI VERY SYSTEMS (3 credit hours)
The current practice, rationale and design of novel drug delivery systems, novel drug delivery systems under investigation and future drug delivery technology and systems are presented in this course.
PHS 909 RESPI RATORY PHARMACOLOGY ( 3 credit hours)
A detailed presentation on the interactions of drugs with the pulmonary system. The molecular basis of drug efficacy in respiratory dysfunctional states will be explored.
(Pre-requisite PBS 809, Pharmacology)

## PHS 910 ENDOCRINE PHARMACOLOGY ( 3 credit hours)

The impact of drugs on the biosynthesis and mechanisms of action of hormones in regulation of cellular metabolism and expression of physiological effects will be discussed. Research problems in endocrinology will be highlighted. (Pre-requisite PHS 809, Pharmacology)

PHS 911 CARDI OVASCULAR PHARMACOLOGY ( 3 credit hours)
An in-depth discussion of the basic physiology of the cardiovascular system and all aspects of chemical interactions with the system. Research techniques designed to address cardiovascular problems will be presented. (Pre-requisite PBS 809, Pharmacology)

## PHS 912 NEUROPHARMACOLOGY ( 3 credit hours)

This course will focus on the etiology and development of neurological disease and how drugs, at a molecular level, affect transmission of chemical signals, the brain's signaling system and function as well as pathways of neurological disorders. (Pre-requisite PBS 809, Pharmacology)

## PHS 913 MOLECULAR PHARMACOLOGY ( 3 credit hours)

Course designed to study receptors, signaling, pathways, enzymes, channels, transcriptional mechanisms, and molecular modeling relevant to drug design and drug action.

## PHS 814 MASTERS RESEARCH

Supervised student research on an approved research problem suitable for preparation of a thesis.

## PHS 815 MASTERS THESIS

Supervised research and thesis preparation
PHS 916 Ph.D. RESEARCH
Supervised research on an approved research problem suitable for the preparation of a dissertation.

PHS 917 Ph.D. RESEARCH
Supervised research on an approved research problem suitable for the preparation of a dissertation.

PHS 918 Ph.D. DI SSERTATI ON
Supervised research and dissertation preparation

## PHS 919 Ph.D. DI SSERTATI ON

Supervised research and dissertation preparation

## BARBARA JORDAN-MICKEYLELAND SCHOOLOFPUBLIC AFFAIRS

The mission of the Barbara Jordan-Mickey Leland School of Public Affairs is to serve as an urban-focused community of learning, dedicated to educating professionals who will plan and administer environmentally healthy and sustainable communities at the local, state, national, and international levels of society. Currently, the Barbara Jordan-Mickey Leland School of Public Affairs offers and administers three graduate degree programs. They are the Master of Public Administration (MPA), Master of Urban Planning and Environmental Policy (MUPEP) and Doctor of Philosophy, Urban Planning and Environmental Policy (Ph.D.). In offering these programs, the School seeks to achieve the following objectives:

1. Promote teaching, research, and service activities that will enhance the performance of public administrators, urban planners, and environmental policy analysts at local, state, national and international levels.
2. Provide an interdisciplinary focused graduate education that contains the theory, concepts, and research skills necessary for students who seek careers in public administration, urban planning, and environmental policy and for those already working in these career areas that want to improve their capabilities.
3. Generate state of art research that advance understanding on complex public policy issues facing public sector managers, urban planners, and environmental policy makers.
4. Educate students with appropriate knowledge, analytic skills, managerial capabilities, and sensitivities to address questions of equity and social justice.
5. Prepare students to become wise consumers of research and instill in them the importance of continuing their professional career development.

## MASTER OF PUBLIC ADMI NI STRATION

## PROGRAM DESCRIPTION

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 knowledge of the workings of governmental and non-governmental
organizations.
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.

## ADMI SSI ON CRITERIA

The Department seeks 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 Barbara Jordan-Mickey Leland School of Public Affairs for acceptance.

In addition to meeting the general requirements for admission to the Graduate School applicants for admission to graduate standing in 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. Applicant's undergraduate cumulative GPA must be at least 2.70 or 3.0 in the final 60 hours.
6. Evidence of proficiency in the use of the English language (performance on the analytical writing section of the GRE may be considered as adequate by the Admissions Committee).

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 attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Geographic residence wherein applicant's high school is located.
h. Applicant's demonstration of performance in community activities.
i. Applicant's demonstration of commitment to a particular field of study.
j. The presence of role models with comparable graduate school training in the applicant's region of residence.

## DEGREE REQUI REMENTS

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

1. Completion of forty-eight (48) credit hours. Of the 48 credit hours, twenty-four (24) credit hours are required core courses. In addition to the core requirements, students are required to take twelve (12) 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.
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 or above graduate GPA for each course or cumulative 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
4. Fulfillment of general requirements for graduation as outlined by the Graduate School (see the General Information Section of this catalog).

## MPA COURSE REQUI REMENTS

## CURRI CULUM SUMMARY

MPA Core Courses (24 SCH)

| PAD 500 | Public Administration Theory and Practice |
| :--- | :--- |
| PAD 502 | Research Methods in Public Administration |
| PAD 503 | Quantitative Methods I |
| PAD 504 | Quantitative Methods II |
| PAD 507 | Seminar In Organizational Theory |
| PAD 509 | Computer Applications In Public Administration |
| PAD 630 | Public Financial Management |
| PAD 640 | Public Personnel Administration: Theory and Practice |

## MPA Specialization Courses (12 SCH)

Students must take 12 hours of coursework in one of the following specialization areas: public policy, human resources, and international and development administration.

| Public Policy |
| :--- |
| PAD 620 The Policy Making Process |
| PAD 621 Social Research and Social Policy |
| PAD 622 Science, Technology, and Public Policy |
| PAD 623 Public Policy Analytical Methods |
| PAD 624 Issues on Aging |

## Human Resources

PAD 641 Human Resources and Organizational Planning
PAD 642 Labor Relations and Collective Bargaining
PAD 705 Topical Seminar or approved substitute
Elective (3 hours)

## I nternational and Developmental Administration

PAD 660 Introduction to International Development
PAD 661 Selected Topics In Comparative International Development
PAD 662 Comparative Public Administration Developing Nations
PAD 663 Seminar on Developing Societies

## Elective Courses (6SCH)

PAD 501 Leadership and Decision Making
PAD 506 Program Evaluation
PAD 508 Administrative Regulations
PAD 630 Public Financial Management
PAD 633 Managerial Finance: Analytical Methods
PAD 650 Intergovernmental Relations
PAD 651 Urban Administrative Systems
PAD 652 Human Services Administration

Electives offered by other schools/colleges may be taken upon approval by faculty advisor and program coordinator.

I nternship ( 6 SCH)
PAD 700 Internship in Public Administration

## COURSE DESCRIPTI ONS

PAD 500 - Public Administration Theory and Practice (3) hrs. General survey of the field of public sector management and administration. Addresses administrative theory, policy, decision-making, and the concepts and practices of organizational management.

PAD 501 - Leadership and Decision Making (3) hrs. The techniques of decision analysis and methodology for making decisions. Focus on risk and uncertainty in the choice among policy alternatives.

PAD 502-Research Methods in Public Administration (3) hrs. Concepts and methods employed in administrative research and analysis with emphasis on methodological assumptions; problems and issues in research design.

PAD 503-Quantitative Methods I (3) hrs. Modeling course introducing classical deterministic optimization models. Topics include linear programming, probabilistic, and statistical models.

PAD 504 - Quantitative Methods II (3) hrs. An applied course in regression analysis, hypothesis testing, estimation, and time series analysis. Strong emphasis will be placed on forecasting techniques. Uses mini-taps, SAS, and SPSS. (Prerequisite PAD 503)

PAD 506 - Program Evaluation (3) hrs. 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. (Prerequisites PAD 502 \& 503)

PAD 507 - Seminar In Organizational Theory (3) hrs. An exploration of the various relationships between organization and management in both the public and private spheres. Utilization of live-case method.

PAD 508 - Administrative Regulations (3) hrs. Focus on the statutory, regulatory, and adjudicative functions of public agencies and the legal context. Reviews interpretation of administrative orders, rules, regulations, contracts and documents.

PAD 509 - Computer Applications In Public Administration (3) hrs. Focuses on current practices for data gathering and analysis with the use of computers.

PAD 620 - The Policy Making Process (3) hrs. 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) hrs. Implications of social science research for social policy. Experimental and research designs useful for deciding which program features to examine systematically. (Prerequisites PAD 502 \& PAD 620)

PAD 622 - Science, Technology, and Public Policy (3) hrs. An examination of the impact of science and technology upon governmental policy in the United States.

PAD 623 - Public Policy Analytical Methods (3) hrs. Application of theories and techniques of policy analysis to current public problems. Focus on design and execution of policy research. (Prerequisite PAD 504)

PAD 624 - Issues on Aging (3) hrs. Addresses range of issues, including employment, health care, housing, income security, and social services. Also addresses social security and Medicare programs.

PAD 630 - Public Financial Management (3) hrs. An introduction to capital budgeting, financial decision-making and valuation. Discussion of financing problems and sources associated with public projects.

PAD 631 - Government Budgeting \& Financial Management (3) hrs. The design and use of planning, budgeting, and other information systems in the control and evaluation of programs. Multi project valuation techniques will be emphasized. (Prerequisite PAD 630)

PAD 633 - Managerial Finance: Analytical Methods (3) hrs. 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 \& PAD 630)

PAD 640 - Public Personnel Administration (3) hrs. Fundamentals in personnel employment and placement, staff and evaluation, wage and salary administration, employment benefits and services, and labor relations.

PAD 641 - Human Resources \& Organizational Planning (3) hrs. Involves critical analysis related to personnel and organizational structure and function. Emphasizes research, planning, staffing and budget preparation.

PAD 642 - Labor Relations \& Collective Bargaining (3) hrs. The rise of labor unions in the public sector. Reviews the collective bargaining process and the legal framework of collective bargaining.

PAD 650 -I ntergovernmental Relations (3) hrs. 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 System (3) hrs. 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) hrs. A focus on the various approaches to planning, delivery and administration of human services through public, private, and nonprofit organizations.

PAD 660 - Introduction to I nternational Development (3) hrs. Theories of development, roles of international institutions in resource exchanges, foreign investment and trade, and development of modernization.

PAD 662 - Comparative Public Administration: Developing Nations (3) hrs. The role of the administrative process of political development. An emphasis upon bureaucracy and political change in emerging nations.

PAD 663 - Seminar on Developing Societies (3) hrs. Analysis of traditional and transitional societies; theories and practices of developmental change; role bureaucracy in development, institutional buildings, public enterprises, technology assessment and transfer.

PAD 700 - Internship (6) hrs. 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. Students who have had three or more years of experience in the public sector, or who are currently in the public sector, may be permitted to substitute six semester hours of course work for the internship requirement. (Prerequisite 24 credit hours)

PAD 705 - Topical Seminar (3) hrs. Selected topics emphasizing contemporary issues in the public sector and public policy.

Elective courses may be taken in business administration, urban planning and environmental policy, law, transportation management or any approved area related to public administration.

## DUAL DEGREES

JD/MPA Program: A combined degree program with Texas Southern University Thurgood Marshall School of Law enables students to acquire both a JD and a MPA degree with a reduction in the total credit hours. To be eligible, the student must apply to and be accepted
by both programs.

## MASTER OF URBAN PLANNING AND

ENVIRONMENTAL POLICY

The Master in Urban Planning and Environmental Policy (MUPEP) trains policy-oriented planners and environmental policy analysts for leadership positions in planning and environmental policy-related organizations, with special emphasis on issues of significance to the communities and regions of the Southwest. The goal of the program is to equip future professionals with analytical and policy formulation skills that will enable them to address with vision and foresight, the current and future environmental problems caused by our impact on the environment.

The major objectives of the Master of Urban Planning and Environmental Policy Program will be to:

1. Train students for professional careers in planning, allowing them to function in both generalist and special roles.
2. Provide students with an understanding of the history and theories of cities and urban regions and the environmental influences on the field of city and regional planning.
3. Prepare students with life-long analytical, research, and communication skills.
4. Provide students with the specific knowledge and skills needed to become successful practicing planners and policy analysts in a wide range of urban, metropolitan and regional planning areas.
5. Provide students with a broad knowledge of the relationship between the built environment and the natural environment.
6. Provide students with scientific and technical skills that can be applied professionally to solve environmental problems.

## ADMISSION CRITERIA

To undertake work leading to the Master's degree in Urban Planning and Environmental Policy, students must be accepted by the Texas Southern University Graduate School. The requirements include a Bachelor's degree from an accredited college or university and a satisfactory academic record.

The Master's degree in Urban Planning and Environmental Policy does not require an undergraduate degree in the field; most entering students come with a baccalaureate degree earned in another discipline because the program is interdisciplinary in nature. The following is requested of each applicant:

1. The departmental application supplement that will include a student information sheet and an educational summary.
2. Three letters of reference (forms are included in the Graduate Application booklet).
3. Two copies of official transcripts from colleges and universities attended. Applicants undergraduate accumulative GPA must be at least 2.70 or 3.0 in the last sixty hours.
4. Statement of Purpose (250-500 words).
5. Scores on the Graduate Record Examination General Test must be submitted by all applicants (including international applicants).
6. Evidence of proficiency in the use of the English language (performance on the analytical writing section of the GRE may be considered adequate by the Admissions Committee).

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 attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of commitment to a particular field of study.
k . The presence of role models with comparable graduate school training in the applicant's region of residence.

## DEGREE REQUIREMENTS

The requirements for the Master in Urban Planning and Environmental Policy are summarized below:

1. A minimum of forty-eight (48) semester credit hours. Of the 48 credit hours, twenty-four (24) are required core courses. In addition to the core requirements, students are required to take twelve (12) credit hours in specialization course. The remaining twelve (12) credit hours can be taken as electives or in six (6) credit hours of electives and 6 credit hours of thesis.
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 and submitted for approval to the Graduate School no later than the second semester in residence.
3. Students can either satisfy internship requirement and satisfactory performance on the comprehensive examination or they may choose a thesis option. A student is eligible to take the exam if the student has:
(a) Earned at least a 3.0 graduate GPA in UPEP courses and a cumulative GPA of 3.0
(b) Completed all core course requirements
(c) No outstanding incompletes
(d) Filed a degree plan
(e) Successfully met the English proficiency requirement (GRE/AWS 3.5 or above or satisfactorily complete English 501 course)
4. Fulfillment of general requirements for graduation as outlined by the Graduate

School (see the General Information Section of this catalog).

MUPEP
COURSE REQUI REMENTS CURRI CULUM SUMMARY

MUPEP Core Courses ( 24 SCH)

| UPEP 800 | The Growth and Development of Cities |
| :--- | :--- |
| UPEP 801 | Planning Theory and Practice |
| UPEP 802 | Quantitative Methods in Planning |
| UPEP 803 | Research Methods and Evaluation in Environmental Planning |
| UPEP 804 | Introduction to Site Design |
| UPEP 805 | Plan Preparation Studio |
| UPEP 806 | Land Use and Environmental Law |
| UPEP 811 | Introduction to GIS in Urban Planning |

## MUPEP Specialization Areas (12 Sch)



| UPEP 812 | Theories of Urban Form and Design |
| :--- | :--- |
| UPEP 813 | Introduction to Land- Use Planning |
| UPEP 821 | Comparative International Topics in Transportation |
| UPEP 841 | Application of Geographic Information Systems in Urban Planning |
| UPEP 844 | Multivariate Analysis Method |
| UPEP 863 | Citizen Participation in Planning Process |
| UPEP 871 | Environmental Values and Ethics |
| UPEP 872 | Methods of Project Analysis |
| UPEP 873-75 | Special Topics (UPEP 873 - Internship) |

Electives can be selected from UPEP specialization areas and other related graduate program courses.

## Thesis ( 6 Sch)

UPEP 888 Thesis
UPEP 889 Thesis
A successful completed thesis indicates (1) that students are capable of independent research and (2) that students have mastered the theory, methods, and understanding that underlie a particular area in urban planning and environmental policy.

MUPEP COURSE DESCRIPTI ONS

UPEP 800 The Growth and Development of Cities (3) Historic interrelationships of various cultural influences and theoretical concepts on contemporary patterns, trends and problems of urban development. Forces which prompted urban development and shaped urban areas throughout human history.

UPEP 801 Planning Theory and Practice (3) Examines the intellectual heritage and procedural approaches shared by practitioners working in all areas of contemporary planning practice. General area of planning theory and ethical issues.

UPEP 802 Quantitative Methods in Planning (3) Descriptive and inferential statistics as applied to public policies in planning and environmental policy. Computer-based analytical tools for planning analysis. The software package SPSS is the working tool of the class.

UPEP 803 Research Methods and Evaluation in Environmental Planning (3) Methods of investigation and analysis, the formulation of theory, selection of appropriate research techniques, data-gathering techniques, data preparation and data processing, measures of association and statistical significance and methods of addressing environmental quality.

UPEP 804 Introduction to Site Design (3) Focuses on the study and evaluation of the built environment, with particular reference to those aspects of the development process that result in "better" physical forms. An appreciation of the architectural and design elements of
land use development.
UPEP 805 Plan Preparation Studio (3) Students work on actual planning projects under the supervision of faculty members to develop planning solutions to real situations confronting communities and other public service organizations.
UPEP 806 Land Use and Environmental Law (3) A basic framework in environmental laws, survey of critical cases, policy decisions and legal history. Regional, national and international issues are addressed with the focus on inter-jurisdictional problem systems in different localities.
UPEP 810 Land-Use Control Policy and Regulation (3) Public land - use policy and legislation, and implementing governmental actions, land-use control exercised by several levels of government, practice and impacts of zoning on growth management.

UPEP 811 Introduction to GIS in Urban Planning (3) Relational databases are examined in the context of urban and environmental planning. Focus is given to geographic information systems for collecting and displaying spatial information.

UPEP 812 Theories of Urban Form and Design (3) Analysis of idealized urban forms, theories and models in urban areas as they relate to function and location of urban activities.

UPEP 813 Introduction to Land Use Planning (3) This course will introduce students to the organization and conduct of local land use planning as practiced in Texas. The course will cover Texas statutes, the General Plan, specific plans and how to do them, and manage a planning department.

UPEP 821 Comparative I nternational Topics in Transportation (3) Covers comparative planning and policies in transportation. Different models of transportation are compared between developed and developing countries effect and relationship between transportation and economic development.

UPEP 841 Application of Geographic Information Systems in Urban Planning (3) Focuses on GIS and its application to both urban planning and environmental policy. Topics will include data discovery, databases design, construction, modeling and analytical measurements.

UPEP 844 Multivariate Analysis Method (3) Multivariate Statistical Methods used to analyze land-use, environmental and other large data sets. Emphasis on causal modeling of cross-sectional data. Topics include multiple regression analysis, non-linear models, path analysis, and log-linear models.

UPEP 850 Urban Infrastructure, Planning and Policy (3) Methods and procedures used in planning basic urban infrastructure systems; transportation, water supply, wastewater, storm water, solid waste. Infrastructure development centralized vs. decentralized system; case study.

UPEP 851 Waste Management and Remediation: Air, Water and Soil (3) Examines current approaches to the management and disposal of urban waste, focusing on alternatives such as recycling, topics will also include disposal of hazardous wastes.

UPEP 852 Environmental I mpact Assessment (3) Explores environmental Impact Assessment processes and methods from both a theoretical and applied perspective. The philosophy and statutory basis of the assessment process is reviewed. The broader planning processes for jurisdiction are emphasized.
UPEP 860 Theory, History and Practice of Community Development (3) Explores the theory, history, methods and practice of local community development. The course examines the historical roots of community involvement and action.

UPEP 861 U.S. Housing Planning and Policy (3) Surveys the residential environmental from economic and sociological perspectives. The behavior of individuals and institutions in
the housing and mortgage markets. Emphasis is placed on examining the impact of federal, state and local policies on housing markets, housing availability, and family welfare.

UPEP 862 Sustainable Communities (3) Examination of sustainable communities, and the environmental, social, economic, political, and design standards that underlie them. Actual case studies of cities, towns and development projects that reflect principles of sustainability.

UPEP 863 Citizen Participation in Planning Process (3) An examination of the role of citizens and citizen organizations in the city planning process. Models for citizen involvement. Examination of the effectiveness of different organizational models in different situations. UPEP 864 Introduction to Real Estate (3) Introduction to methods of financial analysis for real estate investment. Topics include methods of valuation, each flow forecasting, computer modeling, taxation, and leverage structure. Emphasis is placed on the financing of individual projects.

UPEP 871 Environmental Values and Ethics (3) Detailed exploration of the normative debate surrounding environmental issues. Attention to foundation of environmental economics, questions about the value of endangered species, concerns of future generations and obligations toward equity.

UPEP 872 Methods of Project Analysis (3) A course designed to provide an understanding of the variety of planning evaluation methods and processes employed in the review of development proposal, site plans and public policies.

UPEP 873 Special Topics (3) Focuses on selected topics.
UPEP 874 Special Topics (3) Focuses on selected topics.
UPEP 875 Special Topics (3) Focuses on selected topics.
UPEP 888 Thesis (3) Design to be a product of independent research that is approved by a faculty committee.

UPEP 889 Thesis (3) Design to be a product of independent research that is approved by a faculty committee.

## DUAL DEGREE PROGRAM

JD/MUPEP Program: A combined degree program with Texas Southern University Thurgood Marshall School of Law that enables students to acquire both a JD and a MUPEP degree with a reduction in the total credit hours. To be eligible, the student must apply to and be accepted by both programs.

## DOCTOR OF PHILOSOPHY

URBAN PLANNING
AND ENVIRONMENTAL POLICY

For individuals wishing to pursue careers in university teaching, research, or highly specialized practice, the Doctor of Philosophy in Urban Planning and Environmental Policy provides advanced knowledge, skills, and extensive experience working closely with faculty in teaching and research. The program is designed to foster competencies necessary for the critical
examination of the nature of Urban Planning and Environmental Policy. Offered by an interdisciplinary faculty, the program emphasizes preparation in research methods, spatial and regional analysis, development theory, historical processes, analytic and policy formulation skills, and the critical appraisal of alternative causes of change.

## REQUI REMENTS FOR ADMISSI ON

Admissions to the Urban Planning and Environmental Policy Doctoral Program will be granted to a small group each year, selected from those who will be judged most likely to achieve eminence in the field. Persons whose native language is not English will be required to demonstrate proficiency in English before enrolling. To be considered:

1. Applicants for admission to the Ph.D. degree program in Urban Planning and Environmental Policy must meet the requirements for admission to the Graduate School. They must have a bachelor's degree in an appropriate field or an equivalent field acceptable to the admissions committee.
2. Applicants with the Master's degree must have an acceptable cumulative grade point average of 3.3 in graduate work.
3. Applicants must present Graduate Record Examination (GRE) General Test scores and an undergraduate grade point average that must be at least 2.75 overall or 3.0 in the last sixty hours.
4. Demonstrate acceptable proficiency in the use of the English language based upon performance on standardized English Proficiency Test. (Performance on the analytical writing portion of the GRE may be considered as adequate by the Admissions Committee).
5. Have a personal interview with members of the Urban Planning and Environmental Policy Program's Admission Committee.
6. International applicants, in addition to the above requirements, must present to TOEFL score of at least 550 or appropriate evidence of proficiency in the English language.

All applicants admitted to the Ph.D. degree program must have a minimal of 12 master level credit hours in Urban Planning and Environmental Policy or related areas. Otherwise they must satisfy those requirements before achieving candidacy status for the Ph.D. degree. In addition to the above requirements the socioeconomic background of applicants will be considered in the admission process. The following are some factors that may include:
a. Economic status of family when applicant attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of commitment to a particular field of study.
$k$. The presence of role models with comparable graduate school training in the applicant's region of residence.

The formal application must include the following:
a. A completed application form and a non-refundable application fee.
b. At least three (3) 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. In addition international applicants must provide TOEFL scores.
e. Statement of interest ( 500 words).

## DEGREE REQUIREMENTS

The overall requirements for the Doctor of Philosophy in Urban Planning and Environmental Policy are summarized as follows:

1. Satisfactory performance on qualifying examinations.
2. Completion of a total of fifty-four (54) credit hours. Of the 54 credit hours, twenty (21) credit hours are required core courses. In addition to the core requirements, students are required take twelve (12) hours in specialization courses and nine (9) hours of elective coursework. The remaining credit hours are dissertation credits.
3. Of the total 54 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 $B$ (3.0) or better.
4. Satisfactory performance on the Comprehensive Examination.
5. Completion of residency requirement.
6. Presentation and acceptance of dissertation proposal.
7. Completion of the research for an acceptable dissertation.
8. Satisfactory performance on an oral defense of the dissertation.
9. Publication of at least one article in a refereed journal.

## QUALI FYI NG EXAMI NATI ON

The purpose of the qualifying examination will be to test the student's level of understanding of basic concepts in the area of urban and regional theory, planning theory, quantitative methods, and environmental planning and policy. This examination is designed to evaluate the student's technical, diagnostic, and evaluative abilities within selected areas related to planning. Students are assigned to take the examination after the completion of twelve (12) credit hours. Any student who fails the qualifying examination will have only one (1) chance for a retake.

## Ph.D. POLI CY COMMI TTEE

The Ph.D. Policy Committee will be responsible for administering the departmental portions of the comprehensive examination. The departmental portion will include three exams in the following: planning theory, methods, and planning and environmental policy.

## COMPREHENSI VE EXAMI NATI ON

The comprehensive examination is intended to test a student's mastery of the skills and knowledge that should have been acquired in the program of study. Upon the successful completion of this examination and other graduate school requirements, the student becomes a candidate for the doctoral degree.

The examination will be taken at the end of the period of formal course work and study, but prior to the commencement of substantial work on the dissertation. The examination cannot be taken until all credit hour requirements are completed.

## NUMBER OF TI MES COMPREHENSI VE CAN BE TAKEN

A candidate will be given two attempts to take and pass the Comprehensive Examination. A doctoral student who fails the comprehensive examination the second time may petition for a third examination. 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 chairperson of the student's doctoral committee, the department head, the dean of the college and the dean of the graduate school must approve the petition. A student who fails to pass the doctoral comprehensive exam or any part of it after the third attempt will be automatically discontinued as a student in the Doctoral degree program.

## DOCTORAL CANDI DACY

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 Philosophy in UPEP degree program.
2. Satisfy the residency requirement of two consecutive semesters of full-time residence or an approved equivalence.
3. Satisfy the course requirements for the degree program in which he/she enrolled, including the fifty-four (54) semester hours of approved graduate-level course work.
4. Pass the doctoral comprehensive examination.

## DI SSERTATI ON AND ORAL DEFENSE

After achieving candidacy, the advisor in consultation with the candidate will select a 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 BJ-ML SOPA will appoint a graduate school representative to the committee. When the dissertation proposal has been approved, the candidate will prepare a dissertation and make an oral defense to the committee. If failed, the candidate must petition the Dean of the BJ-ML SOPA, 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.

## DISSERTATI ON

The dissertation serves a number of purposes, among them, satisfying the academic community, the university, and the supervisory committee that the student is capable of undertaking and successfully completing independent, scholarly research on a problem of significance to Urban Planning and Environmental Policy. Hence, concerted work on the dissertation will not normally begin until the student has passed the comprehensive examination. A successful dissertation will require original research and will be expected to produce significant advances in knowledge about the subject.

## TI ME LI MIT FOR THE COMPLETI ON OF THE DOCTOR OF PHI LOSOPHY 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 the program requirements.

A student's Doctoral Degree Advisory Committee and the Dean of the Graduate School must
approve continuation in the doctoral degree program beyond the seven-year limit. The maximum time allowed to complete the doctoral program, including an approved extension, is nine (9) calendar years. This time limit does not include work performed as part of the requirements for the master's degree. Credits earned more than seven (7) years prior to the date of completion of doctoral degree requirements at Texas Southern University cannot count toward satisfying the doctoral degree requirements.

## STANDARDS OF PERFORMANCE

To continue in the program, a student must make a reasonable and timely progress toward the degree in terms of course work completed and examinations. A determination that a student is not making satisfactory progress and should be terminated from the program may be made at several points in his or her program, including failure to achieve and maintain a doctoral GPA of at least 3.00, failure to pass twelve (12) credit hours within a twelve-month period, failure of the qualifying or comprehensive examinations, or failure to successfully defend a dissertation proposal or dissertation. In all such cases, a recommendation of dismissal must be made to the Admission Committee and program coordinator, which will review the case and issue a final decision regarding termination from the program.

## PROGRAM CURRICULUM

The overall requirements for the doctoral program are as follows:


## CORE CURRI CULUM REQUI REMENTS

All doctoral students in Urban Planning and Environmental Policy will be required to take twenty-one (21) semester credit hours or core courses in three (3) areas (Planning Theory, Methods and Planning, and Environmental Policy) and participate in the doctoral research curriculum. The core curriculum is designed to provide all students with a general introduction to planning through analytical methods, planning techniques and environmental issues and policies. The core curriculum will consists of twenty-one hours as shown below:

## Planning Theory Requirements

UPEP900 Advanced Planning Theory and Practice
UPEP901 Advanced Urban Theory

## Methods and Planning Requirements

UPEP902 Advanced Planning Analysis (I)
UPEP903 Advanced Planning Analysis (II)

## Environmental Policy Requirements

UPEP904 Environmental Planning and Policy
UPEP905 Environmental Planning and Natural Resources Management
UPEP906 Air Environmental Monitoring \& Analysis

## Ph.D. DEGREE

## COURSES DESCRI PTI ONS

UPEP 900 Advanced Planning Theory and Practice (3) Examines the intellectual and professional roots of contemporary planning theory and practice. Effort is directed toward analyzing these roots with an eye to stimulating new perspectives and concepts for a sustainable community orientation.

UPEP 901 Advanced Urban Theory (3) Evolution of Urban Theory. Genesis and structure of planning thought and methods; economic, political, and social factors influencing the development of urban theories and policies; the theory and development of urban structure; and the history of cities.

UPEP 902 Advanced Planning Analysis (3) Methods for investigation and analysis of urban and environmental phenomena; models, data-gathering techniques; sources and applications of aggregate data; data preparation and data processing; measures of association and statistical significance.

UPEP 903 Advanced Planning Analysis (3) Applied statistics and computing, inferential statistics; multivariate statistical methods; selecting the appropriate statistical test for analyzing bivariate relationships and procedures for more complex designs.

UPEP 904 Environmental Planning and Policy (3) Examines contemporary environmental policy and practice and the institutional framework for establishing policy and programs. Analysis of case studies of environmental planning at the federal, state, and local levels.

UPEP 905 Environmental Planning and Natural Resources Management (3) Examines the problems related to resources management and environmental planning. Relationship between the physical environment and the quality of urban life. Global population impacts to local air pollution control and management.

UPEP 906 Environmental Monitoring and Analysis (3) Interpretation and analysis of scientific information: examination of the chemistry of atmospheric, land and water environment, with particular emphasis on pollution encountered in urban and industrial sectors.

UPEP 907 Environmental Legislation and Policy (3) Legal principles and institutions involved in protecting the environments, including air, water, and noise pollution. The approach of lawyers and courts, as differentiated from that of planner.

UPEP 908 Pollution Control (3) Examines the technological and management options for controlling and preventing air, water, and solid waste pollution.

UPEP 909 Population and Development Planning (3) Examines issues, methods, strategies and problems related to the integration of population information with policies for guiding the social and economic development of third world countries.

UPEP 910 Comprehensive Planning and Growth Management (3) Explores the comprehensive planning process by developing a plan for a local jurisdiction. Problems and needs for growth management; planning approaches and methods for controlling growth in the urban environment.

UPEP 941 Research Colloquium (3) Seminars for doctoral students addressing issues of interests in research, teaching, and career development.

UPEP 942 Dissertation Supervised research and dissertation preparation.

## Master of Administration of J ustice

## PROGRAM DESCRI PTI ON

The purpose of the Master of Administration of Justice (MAJ) Program is to educate a cadre of justice academicians as change agents prepared to teach, conduct research and assume administrative and policy positions at all levels of government, and in the private sector both nationally and globally. The MAJ Program will prepare professionals to address traditional and emerging administrative and management issues in criminal justice agencies.

The program is designed to fill the current void in graduate studies in administration of justice and attract African Americans and other minorities that are underrepresented in graduate administration of justice education. The educational objectives of the MAJ are:

1. To provide students with a foundation of knowledge that includes the history and theory of the administration of justice.
2. To provide students with knowledge of research methods in administration of justice.
3. To develop students' data analysis skills for administration of justice.
4. To develop students' awareness of race, class, and gender related issues in administration of justice.
5. To sensitize students to ethical issues in administration of justice.
6. To provide students with specialized knowledge about justice agency administration.
7. To provide students with the knowledge necessary for advancement to doctoral studies.
8. To prepare students for teaching at the college level.

## ADMISSION CRITERIA

Students with an interest in pursuing a Master's degree in Administration of Justice must meet the admission requirements of the TSU Graduate School. An application for admission to the Graduate School must be completed and is processed through the TSU Graduate School. Completed applications are referred to the BJML SPA for an acceptance decision by the Graduate Admissions Committee in the MAJ program. Decisions of the MAJ Graduate Admissions Committee are referred to the Dean of the Graduate School.

Students must also submit the following to the Graduate School:

1. A typed 250-300 word statement of their interest in administration of justice, their goals and objectives.
2. Three letters of recommendation.
3. Two copies of official transcripts from undergraduate and graduate institutions attended.
4. Test scores from the GRE.
5. Evidence of proficiency in the use of the English language.

Students must have successfully completed an undergraduate course in criminology/criminal justice theory, a course in research methods and a statistics course prior to admission. Students without these courses can be admitted conditionally and are required to complete any prerequisite courses in the SPA with at least a grade of 'B.' Undergraduate preparation in either administration of justice, criminal justice, criminology, public affairs, or the social sciences is preferred but not required.

## DEGREE REQUI REMENTS

The Master of Administration of Justice has the following requirements:

1. Completion of thirty six credit hours. Students can choose either a thesis or non-thesis option.

All students are required to complete six (6) core courses.
2. Students that choose the thesis option also will complete 4 elective courses and a thesis.
3. Students that choose the nonthesis option also will complete six (6) courses that include a capstone seminar in Administration of Justice and an internship that involves research and data analysis.
4. All students must prepare a degree plan after the completion of twelve (12) graduate credits. The degree plan is developed by the student and approved by the advisor. The degree plan must be submitted to the Graduate School during the second semester of the first year of graduate studies.
5. All students must maintain a 3.00 (B) grade point average in all graduate work taken. No more than six (6) semester hours of 'C' work will be accepted.
6. Fulfillment of general requirements for graduation as outlined by the Graduate School.

## COURSE REQUI REMENTS CURRICULUM SUMMARY

MAJ Core Courses (18)
AJ $500 \quad$ Seminar in Administration of Justice (3)
AJ 501 Seminar in Administration of Justice/Criminal Justice/Criminological Theory
AJ 502 Research Methods (3)
AJ 503 Seminar in Quantitative Methods I (3)
AJ 504 Race, Class, Gender, and Crime in Administration of J ustice (3)
AJ 505 Seminar on Ethics and Administration of Justice (3)
MAJ Required Course (Thesis Option only) (6)
AJ 788/789 Thesis (6)
MAJ Required Courses (Nonthesis Option only) (6)
AJ $701 \quad$ Capstone Seminar in Administration of J ustice (3)
AJ 702 Internship (3)
MAJ Elective Courses (Thesis and Nonthesis Option) (12)
AJ 607 Police Administration (3)
AJ $608 \quad$ Crime Lab Administration (3)
AJ 609 Issues in Corrections Administration (3)
AJ 610 Issues in Judicial Administration (3)
AJ 611 Issue in Juvenile Justice Administration (3)
AJ 612 Administrative Law for Justice Agencies (3)
AJ 613 Evaluation Research for Justice Agencies (3)
AJ 614 Issues in Terrorism and Administration of Justice (3)
AJ 615 Seminar on Special Topics in Administration of Justice (3)
AJ 616 Environmental Crime and Administration of Justice (3)
AJ $701 \quad$ Capstone Seminar (3)
AJ 702 Internship (3)

## COURSE DESCRIPTI ONS

AJ 500 Seminar in Administration of Justice (3) This course introduces students to the study of administration of justice. It provides an overview of the historical development of justice agencies and contemporary administrative, organizational, and management issues.

AJ 501 Seminar in Administration of Justice Theory (3) This course examines the historical development of theories in administration of justice, criminal justice and criminology. Emphasis is placed upon concepts, principles, research and policy implications of theories for the administration of justice. PREREQUISITES: AJ 500

AJ 502 Seminar in Research Methods (3) This course provides an overview of research methods, methodological concepts and issues in administration of justice. It includes an analysis of program and policy evaluation research methods. PREREQUISITES: AJ 500

AJ 503 Seminar in Quantitative Methods I (3) An introduction to statistics and data analysis in administration of justice. The course includes an overview of measurement and statistics for univariate, bivariate and multivariate data. PREREQUISITE: AJ 502

AJ 504 Seminar in Race, Class, and Gender in Administration of Justice (3) This course examines the historical and contemporary context of race, class, and gender and its impact on justice agency administration. Special emphasis is placed upon contemporary issues including minority employment trends in justice agencies, racial profiling, and disproportionate minority confinement. PREREQUISITE: AJ 500, AJ 501

AJ 505 Seminar on Ethics in Administration of Justice (3) This course introduces students to the principles of ethics, applied ethics, professional ethics, ethical standards, ethical dilemmas, ethics education and training, and controlling ethics in justice agencies. PREREQUISITE: AJ 500

AJ 607 Police Administration (3) Seminar on the administration and management of federal, state, local, private, special district and tribal police organizations. Special emphasis is placed on new challenges to police administration including community policing, homeland security, immigration, and technological advances. PREREQUISITE: AJ 500

AJ 608 Crime Lab Administration (3) This course examines the policies and procedures critical to crime lab administration. Topics include managing evidence and property inventories, interorganizational cooperation, and new approaches to crime lab management. PREREQUISITES: AJ 500, AJ 607

AJ 609 Issues in Corrections Administration (3) This course will examine the organization and administration of correctional agencies including jails, prisons, probation and parole, and administration of the death penalty. Emphasis is placed on contemporary administrative and policy issues including prison overcrowding, policy initiatives such as threestrikes legislation, and sentencing disparities. PREREQUISITES: AJ 500, 504

AJ 610 Issues in Judicial Administration (3) This course presents an overview of administrative issues confronting courts and court related agencies in Texas and at the federal level. The course will also examine contemporary issues including sentencing policies, disparities in sentencing, restorative justice, and diversion. PREREQUISITES: AJ 500, 501

AJ 611 Issues in Juvenile Justice Administration (3) Critical analysis of historical and contemporary issues in administration and management of juvenile justice agencies and clients. Special emphasis is placed upon disproportionate minority confinement, administration and management of comprehensive strategies for delinquency prevention programs, and community placements. PREREQUISITES: AJ 500, 501

AJ 612 Administrative Law for Justice Agencies (3) This course provides an in-depth analysis of historical and contemporary administrative law guiding justice agencies. It includes an examination of administrative rule-making. PREREQUISITES: AJ 501, 504

AJ 613 Evaluation Research for Justice Agencies (3) This course provides an overview of evaluation research methods and their application to justice agencies policies and programs. It provides an in-depth analysis of the complexities of evaluation research in administration of justice by examining recent research. PREREQUISITES: AJ 501,

AJ 614 Issues in Terrorism and the Administration of Justice (3) This course presents an analysis of the impact of terrorism on administration and management of justice agencies. Topics covered include domestic and international terrorism, integrated terrorism information systems, secure confinement, and technological developments. PREREQUISITES: AJ 501, 607

AJ 615 Seminar on Special Topics in Administration of Justice (3) This course is designed to provide in-depth analyses of selected topics in Administration of Justice. PREREQUISITES: AJ 500, 501, 502, 503

AJ 616 Environmental Crime and Administration of Justice (3) An examination of the nature and forms of environmental crime and the role of justice agencies in its prevention and control. The course includes an examination of perpetrators, enforcement, prosecution and sanctioning at state, national and international levels. PREREQUISITES: AJ 500, 504, 505

AJ 701 Capstone Seminar (3) This course is required for students selecting the non-thesis option. It will examine contemporary issues and practices in administration of justice. The course will culminate with a capstone project that focuses on a specific aspect of administration of justice. PREREQUISITES: AJ 500, 501, 502, 503, 504, 505 and 2 electives.

AJ 702 Internship (3) Internship provides an opportunity for students to gain experience in justice agency policy and program administration. The course will culminate in a project that involves research and policy analysis on a specific aspect of justice. PREREQUISITES: AJ 500, 501, 502, 503, 504, 505 and 2 electives.

AJ 788/ 789 Thesis ( 3 or 6) Enrollment is required when the thesis is being completed. Only 6 credits may be applied to the Master's degree. Students will prepare their thesis under the direction of a thesis advisor and committee. PREREQUISITES: Completion of AJ 500, 501, $502,503,504,505$, and 2 electives. Permission of the GPD.

## Doctor of Philosophy in Administration of Justice

 PROGRAM DESCRI PTI ONThe purpose of the Doctor of Philosophy of Administration of Justice (PhD AJ) is to prepare individuals for (1) leadership and managerial positions in justice agencies and (2) faculty positions in higher education that require advanced knowledge of theory, administration, research, and data analysis. The Doctor of Philosophy in Administration of Justice will educate future leaders needed to assume administrative and policy positions at all levels of government, and in the private sector in the State of Texas, nationally and globally. The educational objectives of the program are:

1. To provide students with a comprehensive understanding of the body of knowledge in administration of justice, criminal justice and criminology.
2. To provide students with a comprehensive understanding of the theoretical foundation of administration of justice, criminal justice and criminology.
3. To provide students with a comprehensive understanding of research and data analysis, and their specific application to administration of justice.
4. To provide students with a comprehensive understanding of the role of race, class, and gender in the administration of justice.
5. To prepare students to assume teaching positions at the university level.

6 . To prepare students to assume research positions at the university level.

## ADMI SSI ON CRITERIA

Students desiring to pursue a doctoral degree in the administration of justice should be capable of advanced academic work in theory, research and data analysis. Students applying for admission to the doctoral program must meet the admission standards of the TSU Graduate School. Applicants must hold the bachelor's degree in an appropriate field, have a cumulative grade point average of at least 2.75 over all, and 3.0 in the last sixty hours of undergraduate studies.
Applicants should have a master's degree or its equivalent in a degree program from an accredited institution of higher education with a grade point average of at least 3.2 in previous graduate work. Each graduate student who is admitted must present Graduate Record Examination (GRE) verbal, quantitative, and analytical writing section scores. The analytical writing score must be 3.5 or above. If the student does not meet the minimum requirement, he or she must enroll in English 501. International applicants whose first language is not English and who have not completed a degree in the United States are required to take and pass the TOEFL with an internet based score of 74, a computer-based score of 213 , or paperbased score of 550 .

The formal application must include the following:
a. A complete application form and a non-refundable application fee of $\$ 50$ for citizens and permanent residents of the U.S. and $\$ 75$ for international applicants.
b. A 400-500 word statement of academic and professional goals.
c. A current curriculum vitae.
d. At least three letters of recommendation from persons qualified to give an evaluation of the applicant's past scholastic performance, research, ability for advanced work in administration of justice, and personal motivation.
e. Two official transcripts of credits earned at all colleges and/or universities attended by the applicant.
f. Scores from the Graduate Record Examination.

The Graduate Admissions Committee (GAC) comprised of graduate faculty will make decisions on admission. During the admission process the GAC will evaluate graduate transcripts of applicants with master's degrees to determine if (1) additional courses are needed at the master's degree level and (2) whether or not courses completed for the master's degree are applicable to the doctoral degree. No more than twelve (12) credits from previous graduate work will be applied towards the doctoral program.

## DEGREE REQUI REMENTS

Requirements include completion of a total of fifty-four (54) credit hours, successfully passing the qualifying examination after the first year of study, passing comprehensive examinations, admission to doctoral candidacy, completion of a residency requirement, preparation and acceptance of a dissertation proposal, completion of the dissertation and an oral defense. These requirements are described below.

## Courses

The doctoral degree will require the completion of 54 semester hours (See Table 1). Up to twelve hours in master's level courses can be waived. All students will complete six (6) required core courses, and eight (8) elective courses. Students have the option of completing four (4) elective courses in a specific area of administration of justice. Students may also select electives from approved courses offered at the graduate level by other departments. Twelve dissertation credits are required. Required core courses include an Advanced Seminar
in the Administration of Justice Organizations and Processes, Advanced Seminar in Administration of Justice/Criminological/Criminal Justice Theory, Advanced Seminar in Administration of Justice Research Methods, Seminar in Advanced Quantitative Methods I, Advanced Seminar in Race, Class, Gender, Crime and Administration of Justice, and a Research Colloquium. The elective courses will be selected based upon student interests in consultation with the graduate program director. Students may also select a cognate area of specialization outside of the program with permission of their advisor and the GPD. Students are required to complete all courses with at least a 'B.'

## Qualifying Examination

Upon completion of the required core courses (18 credit hours) (usually during the first year of study), students must successfully pass the qualifying examination that determines their level of understanding of administration of justice theory, research and quantitative analysis. Students who fail the qualifying examination can only retake it once. Failure to pass two qualifying examinations will result in dismissal from the doctoral program.

## Comprehensive Examinations

Doctoral students must successfully complete comprehensive examinations in two subject areas: Administration of Justice, Research and Quantitative Data Methods, and Race, Class, Gender, Crime and the Administration of Justice. Students who fail to pass a comprehensive examination may retake it only once. Failure to pass two comprehensive examinations will result in dismissal from the
doctoral program.

## Admission to Candidacy

Students must satisfy all of the requirements listed below in order to be admitted to doctoral candidacy:

1. Unconditional admittance to the Doctor of Philosophy in Administration of Justice.
2. Satisfactory completion of 54 semester hours of doctoral level course work.
3. Successful completion of doctoral comprehensive examinations.
4. Satisfactory completion of the residency requirement.

## Dissertation

After admission to candidacy the doctoral student will consult with his or her academic advisor to select a dissertation committee. Dissertation committees should consist of a chairperson and three graduate faculty members. The dissertation committee must be approved by the Graduate School. The Graduate School dean will appoint a graduate school representative to the dissertation committee after approval of the dissertation committee members. Once approval is granted, the student can prepare the dissertation proposal. The dissertation proposal must be presented orally and approved by the dissertation committee. The dissertation must contribute to the administration of justice body of knowledge and be successfully defended orally.

## CURRI CULUM SUMMARY

## Prerequisite/ Leveling Courses (12)

Leveling Courses include the completion of at least 12 hours in master's level courses with a grade of 'B' or better.

## Required Courses (18)

AJ 900 Advanced Seminar in the Administration of Justice Organization and Processes (3)
AJ 901 Advanced Seminar in Criminological/Criminal Justice Theory (3)
AJ 902 Advanced Seminar in Administration of Justice Research Methods (3)
AJ 903 Seminar in Advanced Quantitative Methods I (3)
AJ 904 Advanced Seminar in Race, Class, Gender, Crime and the
Administration of Justice (3)
AJ 987 Research Colloquium (3)

## Required Courses (12)

AJ 988 Dissertation
AJ 989 Dissertation

## Elective Courses (24)

AJ 905 Seminar in Advanced Crime Mapping and Administration of Justice (3)
AJ 906 Advanced Seminar in Homeland Security Administration and Management (3)
AJ 907 Seminar in Contemporary Issues in Homeland Security Administration (3)
AJ 908 Advanced Seminar in Private Security Administration (3)
AJ 909 Advanced Seminar on Terrorism (3)
AJ 910 Seminar in Administration of Justice Policy, Evaluation and Planning (3)
AJ 911 Seminar in Advanced Topics in Race, Gender, Class, Crime \& Administration of Justice (3)
AJ 912 Seminar in Qualitative Methods in Administration of Justice (3)
AJ 913 Seminar in Advanced Quantitative Methods II (Special Topics) (3)
AJ 914 Advanced Seminar in Law and Administration of Justice (3)
AJ 915 Advanced Seminar in Applications of Geographic Information Systems in Administration of Justice (3)
AJ 916 Doctoral Seminar in Special Topics (3)

## Curriculum

## AJ 900 Advanced Seminar in the Administration of Justice Organizations and Processes (3)

This is an advanced course designed to examine Administration of Justice agencies and processes in a historical and contemporary context. It includes an in-depth analysis of contemporary issues and challenges in justice organizations.

## AJ 901 Advanced Seminar in Administration of Justice/ Criminology/ Criminal Justice Theory (3)

This course examines criminological, criminal justice and administration of justice theories. It includes an analysis of the interrelatedness of justice theories and recent theoretical developments.
PREREQUISITE: AJ 900

## AJ 902 Advanced Seminar in Administration of Justice Research Methods (3)

This course examines the theory and concepts of research design and measurement. It includes in-depth analyses of operationalization of theoretical concepts, causality, validity, and principles and challenges to research methods in administration of justice.

## AJ 903 Seminar in Advanced Quantitative Methods I (3)

This course examines advanced quantitative methods of data analysis. It includes the theoretical foundation for regression analyses and examines linear regression, multiple regression, and logistic regression. Special attention is devoted to recent quantitative studies in administration of justice utilizing advanced regression statistical techniques. PREREQUISITE: AJ 902

## AJ 904 Advanced Seminar in Race, Class, Gender, Crime and the Administration of Justice (3)

This seminar surveys the role of race, class, and gender in the administration of justice. It provides an in-depth analysis of historical and contemporary research on race, class, gender, and crime. Special emphasis is placed upon social, economic, and political factors that impact crime and the administration of justice policy and planning.
PREREQUISITE: AJ 900

## AJ 905 Seminar in Advanced Crime Mapping and Administration of Justice (3)

This course examines the history and contemporary strategies and applications of crime mapping in justice agencies including mapping crime locations and density of crime, victims and offenders.
PREREQUISITE: AJ 903

## AJ 906 Advanced Seminar in Homeland Security Administration and Management (3)

Advanced Seminar in Homeland Security Administration and management provides an indepth analysis of the homeland security administration that includes its history, corrections, law enforcement and judicial issues, international administration of justice agencies, management issues and intergovernmental relations.
PREREQUISITE: AJ 900

## AJ 907 Advanced Seminar in Contemporary Issues in Homeland Security Administration (3)

This advanced seminar examines emerging and contemporary issues in Homeland Security Administration including threat assessment, technological advancements, ethical issues, interagency cooperation, preventive security, and community involvement. PREREQUISITES: AJ 900, 906

## AJ 908 Advanced Seminar in Private Security Administration (3)

This course will examine administration and management of private security agencies. It will include the history, theory, and current practice of private security. Special emphasis will be placed upon cooperation between public and private security agencies, technological developments, and other contemporary issues.
PREREQUISITES: AJ 900
AJ 909 Advanced Seminar on Terrorism (3)
An overview of terrorism and counter-terrorism issues in the administration of justice. The
seminar examines terrorism legislation, domestic and international terrorist groups, responses to terrorism by state, local, and federal agencies, and recent terrorism policies and research. PREREQUISITES: AJ 900, 906

## AJ 910 Advanced Seminar in Administration of Justice Policy, Evaluation and Planning (3)

This course includes an examination of policy and planning in administration of justice agencies. It presents an in depth analysis of the history of the policy making process and internal and external dynamics of planning. Special attention is devoted to contemporary developments in law enforcement, corrections and judicial policy and planning.
PREREQUISITES: AJ 900, 901, 903, 904

## AJ 911 Seminar in Advanced Topics in Race, Gender, Class, Crime \& Administration of J ustice (3)

This seminar provides in-depth analysis of critical issues in the study of race, class, gender and crime \& administration of justice. Recent policies and research on selected contemporary topics including sentencing, traffic stop data collection, and homeland security profiling will be examined. The course also examines recent developments in disproportionate minority confinement, violence, victimization research as well as other relevant issues.
PREREQUISITES: AJ 900, 901, 902

## AJ 912 Seminar in Qualitative Methods in Administration of Justice (3)

This course examines qualitative research and data analysis methods and their application in administration of justice.

## AJ 913 Seminar in Advanced Quantitative Methods II (Special Topics) (3)

This course is designed to provide an in depth analysis of specific advanced topics in quantitative methods and their application to administration of justice. These topics include structural equation modeling, modeling longitudinal data, categorical data analysis, and meta analysis.
PREREQUISITE: AJ 901, 903

## AJ 914 Advanced Seminar in Law and Administration of Justice (3)

This course provides an in-depth analysis of the role of law in administration of justice. Special attention is devoted to recent and contemporary administrative law guiding justice agencies. It includes an examination of laws enacted to prevent and control terrorism and to foster homeland security. Issues in international law are also addressed.
PREREQUISITES: AJ 900, 901, 902, 910

## AJ 915 Advanced Seminar in Applications of Geographic Information Systems in

 Administration of J ustice (3)This seminar examines the history and theory of geographic information systems in administration of justice. In includes an exploration of techniques of geographic information that includes collection, display, analysis and storage and applications.
PREREQUISITES: AJ 905, Permission of the GPD.

## AJ 916 Doctoral Seminar in Special Topics (3)

An advanced seminar that focuses on selected topics and recent developments in Administration of Justice.
PREREQUISITES: Admission to Candidacy and defense of the dissertation proposal.

## AJ 987 Research Colloquium (3)

This advanced seminar will present issues of concern for doctoral candidates. Specific attention will be devoted to grantsmanship, publishing, emerging research issues, teaching, and other aspects of career development.
PREREQUISITES: Admission to Candidacy and successful defense of the dissertation proposal.

## AJ 988/ 989 Dissertation (12)

Under the guidance of a dissertation advisor and committee students will complete a dissertation and orally defend it. The dissertation should add to the body of administration of justice knowledge. A total of twelve dissertation credits are required.

## COLLEGEOF <br> SCIENCE \& TECHNOLOGY

The mission of the College of Science and Technology is to prepare competent professionals and leaders capable of providing effective service and solutions for an everevolving and advancing society, especially in urban environments. 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.

## ADMISSIONS 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 are expected to present evidence of having completed minimally the following courses and/or credit hours:

```
Biology
                .31 (minimum)
Chemistry................ }1
    Mathematics............ }1
    Physics...................... }
```

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 REQUI REMENTS MASTER OF SCIENCE IN BIOLOGY

1. An examination on the fundamentals of biology before admission to candidacy.
2. Demonstration of proficiency in English, prior to admission to candidacy either by a score of 3.5 on the analytical writing section of the GRE $h$ 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 thirty (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.

CURRI CULUM SUMMARY
MASTER OF SCI ENCE DEGREE IN BI OLOGY
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.

## ALLOCATI ON OF THI RTY SEMESTER

 CREDIT HOUR COURSE REQUIREMENTSGeneral Requirements: Minimum thirty (30) semester credit hours of which six (6) hours of thesis research credit should be satisfied by taking Biology 861 twice.

Twenty-four (24) hours of graduate credits* are required through selection of the following courses:

$$
\text { Biol. } 623 \text { (3)** Biol. } 631 \text { (3) Biol. } 636 \text { (3) }
$$

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)

* No more than six (6) semester credit hours may be taken from 400-level courses designated as advanced undergraduate/graduate courses.
$* *(N)=$ Number of semester credit hours.
COURSE DESCRIPTI ONS
ADVANCED UNDERGRADUATE-GRADUATE
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 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.

## CURRI CULUM SUMMARY MASTER OF SCI ENCE IN CHEMI STRY

## 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 SCI ENCE (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 Chemistry through study beyond the master's degree.

## ALLOCATI ON OF THI RTY 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)............................................................. 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)

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TOTAL. 30SCH
Approved selected ES (Environmental Toxicology) courses.
**Enroll twice
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## COURSE DESCRIPTI ONS <br> ADVANCED UNDERGRADUATE-GRADUATE

CHEM 445 B1OCHEMI STRY (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 I NORGANI C CHEMI STRY (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 ANALYTI CAL CHEMI STRY (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 non-aqueous media. Three lecture hours per week. ( Prerequisite: Approval of the graduate advisor or 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 SPECI AL 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 SPECI AL 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 PHYSI CAL 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)
$\qquad$

The primary mission of Computer Science Department is designed to expose students to the most current-trends in both computer software and hardware. It involves the study and design of computer systems and associated system software. Particular emphasis is given to programming techniques, software engineering, computer networks, and distributed systems. The students acquired knowledge would enable them to convert the small box called computer into information processing tools to be applied in real-life problems. It introduces detailed understanding of constructing and maintaining systems by taking part in research projects. It generated ideas by means of dynamic education methods that will improve the creative thinking abilities of students. It educated students and increases their employment opportunities. It prepares graduate students with adequate knowledge to pursue in post graduate educations.

The M.S. in Computer Science has been designed to provide a flexible graduate curriculum for students who matriculate through its associated degree program. The main objectives in offering this degree are as follows:
(1) To provide advanced post-baccalaureate study in computer science for students with strong undergraduate preparation in the academic discipline.
(2) To prepare technically superior computer professionals for the workforce.
(3) To provide working computer professionals with advanced educational experiences that supports their ability to perform at an advanced level in their work environments.
(4) To prepare students for additional study toward the Ph.D. in Computer Science.

Admission to the Program is accomplished in accord with the requirements for admission to the Graduate School at Texas Southern University.

The entire admission process will be under the direction of the Graduate Committee in the Department of Computer Science and the Graduate Council in the Graduate School at the University.

For unconditional admission, the University requirements, as well as the Program requirements, are as follows:
(1) Graduation with the bachelor's degree, or its equivalent, from an accredited college or university. An example of the "equivalent," as indicated 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 for 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 550 on the TOEFL, if the applicant has a degree from a non US university.

Conditional admission may be given to applicants who do not satisfy all of the requirements for unconditional admission in accord with existing University procedures. However, final disposition of these cases ultimately rests with the Dean of the Graduate School.

In addition to the general requirements for admission referenced above, applicants for admission to graduate standing in Computer Science are expected to present evidence of having completed the following courses with the minimum number of semester credit hours indicated with grades of "C" or better:

- Object Oriented Programming/C++ or JAVA (3)
- Computer Organization (3)
- Data Structures (3)
- Operating Systems (3)
- Discrete Mathematics (3)
- Differential and Integral Calculus (3 to 6)

After successfully completing the course requirements to be described below, students admitted to the Program must pass a department-administered Qualifying Examination upon completion of those courses designated as "core courses" for the M.S. in Computer Science. This examination must be passed after no more than two attempts and prior to embarking upon a thesis, if the curriculum plan described below that requires a thesis (Plan A) is followed.

A student cannot be accepted to "candidacy status" for the M.S. in Computer Science until the Qualifying Examination is successfully completed.

An overall summary of the general requirements for the M.S. in Computer Science follows:
(1) Satisfactory completion of the Qualifying Examination upon completion of courses designated as "core courses." if the Plan A curriculum of study is selected.
(2) Completion of a total of thirty (30) semester credit hours in Computer Science ( 500 and 600 Level) as described in detail below through Plan A or Plan B with a grade point average of 3.00 or better.
(3) Completion and presentation (through an oral defense) of a thesis to a committee composed of members of the Department of Computer Science and representatives of the Graduate School, if the Plan A curriculum of study is selected.
(4) Completion of a total of six (6) semester credit hours advanced electives (600 level) if the Plan B curriculum of study is selected.
(5) Completion of an application for graduation.

In designing the overall curriculum of study for the M.S. in Computer Science, the guidelines for computer science curriculum content from the Association for Computing Machinery (ACM) were consulted. The ACM is a highly respected professional organization that has guided the development of computer science educational programs for many years. Essentially, the ACM recognizes a set of fourteen (14) content areas that represent the body of knowledge for computer science. These areas are as follows:

| 1. Discrete Structures (DS) | 2. Programming Fundamentals (PF) | 3. Algorithms and Complexity (AL) |
| :--- | :--- | :--- |
| 4. Architecture and Organization (AR) | 5. Operating Systems (OS) | 6. Net-Centric Computing (NC) |
| 7. Programming Languages (PL) | 8. Human-Computer Interaction (HC) | 9. Graphics and Visual Computing (GV) |
| 10. Intelligent Systems (IS) | 11. Information Management (IM) | 12. Social and Professional Issues (SP) |
| 13. Software Engineering (SE) | 14. Computational Science (CN) |  |

The M.S. in Computer Science requires the completion of thirty (30) semester credit hours to be completed over a two-year period. Students enrolled will have the option of either doing a thesis (Plan A) or not doing one (Plan B). For the Plan A curriculum, six (6) semester credit hours are devoted to original research, while Plan B curriculum requires the completion of six (6) extra elective credits.

For Plans A and B, 12 semester credit hours through four courses constitute a core curriculum
that must be completed before a student is allowed to attempt the Qualifying Examination for establishing his/her candidacy for the M.S. Degree Plan A. The Examination may not be attempted more than twice for a student to remain in good standing. Once the Qualifying Examination is successfully completed, the student is admitted to candidacy for the M.S. in Computer Science. If the student elects to follow Plan A, he/she is appointed a Thesis Advisor by the Chairperson of the Department of Computer Science in accord with the regulations of the Graduate School.

The four core courses address the first seven content areas of the fourteen total areas referenced by the ACM. The remaining content areas are addressed in elective offerings in accord with the backgrounds and research interests of the faculty members to anchor the overall graduate program.

Thus, the Plan A curriculum requires completion of 4 core courses for 12 semester credit hours, 4 elective courses for 12 semester credit hours, and 6 semester credit hours of thesis research for a total of 30 semester credit hours.

The Plan B curriculum requires completion of four core courses for 12 semester credit hours, and 5 elective courses for 15 semester credit hours, and one course of independent study for 3 semester credit hours for a total of thirty (30) semester credit hours. Plan A requires the passing of a departmental Qualifying Examination at the completion of the core requirements. These overall plans are designed for students to complete at Texas Southern University once admitted. Transfer students will not be recruited. However, in the event that a student wants to transfer credits from an accredited institution of higher learning to the University for Use in fulfilling requirements for the M.S. in Computer Science, the Dean of the Graduate School must be contacted directly for review of the request. If the request for transfer credits is approved by the Dean, official notification is provided to the Office of the University Registrar to include these credits on the student's official transcript. The following two restrictions apply to these transfer credits: no more than six (6) semester credit hours may be transferred at the graduate level, and credits accepted for transfer must have been earned with grades of "B" (3.00) or better.

The four core courses are listed below. Reference is made to the ACM content area(s) addressed at the end of each course title.

CS511 Algorithmic Analysis and Data Structures, 3 semester credit hours, ACM content areas: PF, PL and AL

CS531 Computer Architectures, 3 semester credit hours, ACM content area: AR
CS541 Operating Systems, 3 semester credit hours, ACM content areas: OS and NC
CS551 Theory of Computation, 3 semester credit hours, ACM content areas: DS and AL
The following courses are intended as electives for the degree program with ACM content areas noted:

CS545 Computer Networks, 3 semester credit hours, ACM content areas: NC and OS
CS547 Cryptography and Computer Security, 3 semester credit hours, ACM content areas: SP and NC.

CS553 Formal Languages, 3 semester credit hours, ACM content areas: PL, AL
CS571 Artificial Intelligence, 3 semester credit hours, ACM content area: IS
CS583 Data Mining, 3 semester credit hours, ACM content area: IM
CS591 Web Services, 3 semester credit hours, ACM content areas: NC, HC, and PL
CS661 Advanced Software Engineering, 3 semester credit hours, ACM content area: SE

CS681 Advanced Database Management Systems, 3 semester credit hours, ACM content area: IM

CS696 Special Topics in Computer Science, 3 semester credit hours, ACM content areas: All Possible

CS697 Independent Master's Project, 3 semester credit hours, ACM content areas: All Possible

CS698 Master's Thesis Research I, 3 semester credit hours, ACM content areas: All Possible

CS699 Master's Thesis Research II, 3 semester credit hours, ACM content areas: All Possible

## COURSE DESCRIPTI ONS

CS511 Algorithmic Analysis and Data Structures ( 3 semester credit hours) Design, implementation, and analysis of abstract data types; data structures and their algorithms. Also included: data and procedural abstraction, linked tests, stacks, queues, binary trees, priority queues, heaps, searching, and sorting. Specific algorithmic design techniques to be addressed are divide and conquer, the greedy method, backtracking, branch-and-bound, and dynamic programming. Three hours of lecture per week.

CS531 Advanced Computer Architectures ( 3 semester credit hours) Architecture of computer hardware, including memory hierarchies, I/O mechanisms, instruction set and data level parallelism, symbolic computation, multiprocessor networks and consistency, and performance modeling. Operational units and their interconnections, which result from architectural specifications, discussed. Also included: memory hierarchies, pipelining, RISC vs. CISC architectures, super scalar processors, and microprogramming. Contemporary illustrations included. Three hours of lecture per week.

CS541 Advanced Operating Systems ( 3 semester credit hours) Design principles and construction techniques for operating systems discussed. Also included: kernel, process management, memory management, multi-threading, auxiliary storage management, and resource allocation. Comparative structures of different kinds of operating systems included. Three hours of lecture per week.

CS545 Computer Networks ( 3 semester credit hours) Functions required to operate computer communications networks and methodology procedures (called "protocols") for implementing the functions. Broad area of wireless data networks addressed. Other topics included: ad hoc radio nets, wireless LAN's, 2.5 G and 3 G cellular network architectures, and Internet protocols. Main focus on the TCP and network layer. Prerequisite: consent of the instructor. Three hours of lecture per week.

CS547 Cryptography and Computer Security ( 3 semester credit hours) Fundamentals of security principles; security policies; access control systems and methodology; identification, authentication, and accountability; computational number theory and cryptography; strategies of cryptography; and methods of cryptanalysis. Implications and relationships of security in different areas discussed along with applications. Prerequisite: Consent of the instructor. Three hours of lecture per week.

CS 551 Theory of Computation ( 3 semester credit hours) Topics include finite automata; regular sets, expressions and their properties; push-down automata; standard, universal, and linear-bounded Turing machines; relationships between formal languages and automata; Church-Turing thesis; computational view of $P$ and NP problems, undecidability and its consequences. Three hours of lecture per week.

CS553 Formal Languages ( 3 semester credit hours) The primary objective is to provide basic understanding of the foundations, design and implementation of programming languages. The major emphasis will be placed on formal specification of syntax and semantics and a variety of programming language paradigms including, statement-oriented and procedural, logic, functional, object-oriented and parallel programming languages. Consent of the instructor. Three hours of lecture per week.

CS571 Artificial Intelligence ( 3 semester credit hours) In depth study of artificial intelligence (AI) systems. Specific topics include: intelligent agent, problem solving, knowledge representation and reasoning, uncertain knowledge and non-monotonic reasoning, uncertain reasoning and statistical methods, planning, machine learning, natural language processing, image processing, and robotics. Consent of the instructor. Three hours of lecture per week.

CS583 Data Mining ( 3 semester credit hours) Introduction to the concepts of data mining, including applications, data preparation, model building and evaluation, scoring, data warehousing, architecture data capture, ETL, schema modeling, query design, and optimization. Consent of the instructor. Three hours of lecture per week.

CS591 Web Services ( 3 semester credit hours) Provides understanding and experience in modeling essential aspects of Web-based business application systems, including basic processes to the analyze information requirements and to design appropriate solutions leading to web-based applications in an e-business environment. Emphasis on object-oriented analysis and design, client/server system development methods, and human-computer interaction techniques. Consent of the instructor. Three hours of lecture per week.

CS661 Advanced Software Engineering (3 semester credit hours) Software measurement and analysis theory, applications, and techniques. Also included: process and product metrics, risk and hazard assessment, quality assurance certification techniques, COCOMO model for cost estimation, re-use, re-engineering, and software safety. Consent of the instructor. Three hours of lecture per week.

CS681 Advanced Database Management Systems ( 3 semester credit hours) Advanced issues related to database design, data modeling and normalization, query optimization, functional dependencies, data integrity, and data security. Consent of the instructor. Three hours of lecture per week.
CS696 Special Topics in Computer Science ( 3 semester credit hours) Consideration of contemporary topics and issues in computer science and associated technology. Consent of the instructor. Three hours of lecture per week. This course can be repeated for different topics.

CS697 Independent Master's Project (3 semester credit hours) Opportunity for students to do an independent in-depth study on a contemporary topic under the mentorship of a faculty member. Required of students pursuing the Plan B (non-thesis) option. Prerequisites: Completion of 18 semester credit hours including core courses.

CS698 Master's Thesis Research I (3 semester credit hours) Required independent research project under the mentorship of a faculty member that leads toward the completion of a written thesis for students pursuing the Plan A (thesis) option. Prerequisites: Completion of 18 semester credit hours including core courses and passage of the departmental Qualifying Examination.

CS699 Master's Thesis Research II ( 3 semester credit hours) Continuation of CS698. Prerequisites: CS698

## ENVIRONMENTALTOXICOLOGY

$\qquad$
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 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 an 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 PHI LOSOPHY DEGREE ENVI RONMENTAL TOXI COLOGY

## DOCTOR OF PHI LOSOPHY 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 attended elementary, secondary, and undergraduate school.
b. Applicant is first-generation to attend undergraduate school.
c. Applicant is first-generation to attend graduate or professional school.
d. Applicant is multilingual.
e. Applicant was employed while attending undergraduate school.
f. Applicant helped rear other children in family.
g. Applicant's geographic residence in Texas at time of application.
h. Geographic region wherein applicant's high school is located.
i. Applicant's demonstration of performance in community activities.
j. Applicant's demonstration of 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.
I. The applicant's performance during a personal interview.
4. Demonstrate acceptable proficiency in the use of the English language based upon performance on a standardized English Proficiency Test. (Performance on the analytical writing portion of the GRE may be considered as adequate by the Admissions Committee.)
5. Have a personal interview with the Department Chair and faculty members in the area of the planned academic concentration.
6. 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.
7. The formal application must include the following:
a. A completed application form and a non-refundable application fee.
b. At least three (3) 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.

## DEGREE REQUI REMENTS DOCTOR OF PHI LOSOPHY DEGREE I N ENVI RONMENTAL TOXI COLOGY

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 seventy-five (75) semester credit hours above the master's degree (usually 900 level courses). 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.

## QUALI FYI NG EXAMI NATI ON

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 EXAMI NATI ON

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.

## I NTERNSHIP

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 CANDI DACY

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.

## ADMI SSI ON TO CANDI DACY

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.

## CHOI CE OF MAJ OR ADVI SER

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 (3) 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.

## DI SSERTATI ON

The Ph.D. is primarily a research degree, and the student is expected to demonstrate the ability to design a research project, implement it, contribute new knowledge to the field of
study, and write an acceptable dissertation. The dissertation topic and 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.

## CURRI CULUM

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 healthier 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 thirty (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 fulltime 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; and Natural Toxicants.

## TI ME LI MIT FOR THE DOCTOR OF PHI LOSOPHY 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 <br> MASTER OF SCIENCE DEGREE ENVI RONMENTAL TOXI COLOGY

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 (60) hours. In addition to the aforementioned requirements, the socioeconomic background of applicants will be considered in the admission process.

1. Economic status of family when applicant attended elementary, secondary, and undergraduate school.
2. Applicant is first-generation to attend undergraduate school.
3. Applicant is first-generation to attend graduate or professional school.
4. Applicant is multilingual.
5. Applicant was employed while attending undergraduate school.
6. Applicant helped rear other children in family.
7. Applicant's geographic residence in Texas at time of application.
8. Geographic region wherein applicant's high school is located.
9. Applicant's demonstration of performance in community activities.
10. Applicant's demonstration of commitment to a particular field of study.
11. The presence of role models with comparable graduate school training in the applicant's region of residence.
12. 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 (8)
- General Organic Chemistry w/laboratory (8)
- Biology w/laboratory (8)
- Physics
- Calculus


## DEGREE REQUI REMENTS <br> MASTER OF SCI ENCE DEGREE ENVI RONMENTAL TOXI COLOGY

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

1. Satisfactory performance on the Qualifying Examination.
2. Completion of a total of thirty-six (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.
3. 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.
4. 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 DESCRIPTI ONS <br> GRADUATE COURSES <br> ENVI RONMENTAL TOXI COLOGY

## 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 MECHANI SMS 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 physicalphenomena, 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 ENVI RONMENTAL 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 ENVI RONMENTAL 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.

## SPECI ALI ZATI ON 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 concurrently] 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. Retro synthetic strategies will be discussed throughout the lectures. (Prerequisite: CHEM 232 or equivalent)

ES 911 GAS CHROMATOGRAPHY \& MASS SPECTROMETRY OF TOXIC CHEMI CALS (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 NEUROPHYSI OLOGI CAL BASI S OF NEUROTOXI COLOGY (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 CHEMI STRY (3) Structured and function of biomolecules; molecular recognition; enzyme reaction mechanisms; design of substrates for l 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 SEMI NAR IN ENVI RONMENTAL 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 Mathematical Sciences offers courses leading to the Master of Science degree in Mathematics (for two-year college teaching, careers in industry or government, and preparation for doctoral study).

## AI MS AND OBJ ECTI VES

The Department of Mathematical Sciences 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 (3) the past experiences of the students enrolled. In its graduate program, the Department seeks to accomplish the following objectives:

1. Provide mathematical training for elementary and secondary teachers, particularly those in urban schools.
2. Provide mathematical training for personnel in industry, government, and institutions of higher learning where higher mathematics is needed.
3. Explore and apply the most effective methods for educating mathematics major consistent with the objectives of their degree programs.
4. Provide graduate students in mathematics an opportunity to engage in research on new teaching methodologies, the development of new teaching materials, preparation of expository papers, and the development of new fundamental results.

The ultimate aim of the staff in the Department of Mathematical Sciences is to prepare graduate students who are competent practitioners of mathematics and 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 twenty-one (21) semester hours of mathematics, including at least twelve (12) hours of Calculus and at least 12 hours from the following list of courses (or courses equivalent to these): MATH 250 251, $336,439,462,460,462,473$. Additional work and semester hours may be required for students who have not completed these courses. Further, students entering the program are required to have gained experience in the use of logic and practice in writing rigorous proofs. Any exceptions to these requirements must be approved by the Chair of the department. The requirements for the master's degree in mathematics are as follows:

1. Students must pass a proficiency examination on the fundamentals of mathematics before admission to candidacy. This examination cannot be taken more than three times.
2. A minimum of thirty (30) semester hours of graduate work. Some 400 -level courses can be counted toward the master's degree, but at most two such courses.
3. An acceptable thesis on the subject approved by both the Department of Mathematical Sciences and the Graduate School.
4. Other general University requirements.

## MASTER OF EDUCATI ON DEGREE

The Master of Education Degree is conferred by the college of Education. Those persons interested in receiving the Master of Education Degree with a Mathematics Concentration should consult with faculty in the department of Curriculum and Instructions.

## COURSE DESCRI PTI ONS 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 (12) hours of college mathematics)

MATH 431* USES OF COMPUTERS I N MATHEMATI CS (3) Role and nature of computers as tools in problem solving; impact of computers on mathematics; application of computers to modeling and simulating mathematical situations. (Prerequisites: MATH 241 and MATH $\mathbf{2 4 2}$ or consent of the instructor)

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* A SURVEY OF MATHEMATICAL IDEAS (3) Designed to review major topics taught in the secondary school and supplement the technical material of other mathematics coursed required for teacher preparation and certification. The use of technology is included along with national and state mathematics standards and TEXES competencies. Three hours of lecture per week. (Prerequisite: MATH 243 or instructor's consent of the instructor. Formerly known as contemporary math and its applications).

MATH 439* ADVANCED CALCULUS I (3) The real number system; elementary point set theory; sequences and series; continuity; differentiation and integration. (Prerequisites: MATH 314 and either MATH 331 or CS 124)

MATH 460* I NTRODUCTI ON TO COMPLEX ANALYSIS (3) Complex numbers and complex geometry; limits, continuity, derivatives, and the Cauchy-Riemann equations; analytic and harmonic functions; Cauchy's Integral Theorem and its consequences. (Prerequisites: MATH 243 and MATH 331)

MATH 462* I NTRODUCTI ON TO TOPOLOGY (3) Topics include metric spaces, connectedness, and compactness. The topology of Euclidean spaces is discussed in detail as well as its generalization to non-metric topological spaces. (Prerequisites: MATH 243 and MATH 331)

MATH 471* TOPICS IN MATHEMATICS I (3) New developments and trends in mathematics are discussed. Three hours of lecture per week. (Prerequisites: Consent of the instructor)

MATH 471* TOPICS IN MATHEMATICS II (3) Continuation of Math 471. Three hours of lecture per week. (Prerequisites: Consent of the instructor)

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* PROBABI LITY 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; Isomor-phism Theorem; Cayley's Theorem; rings and fields. (Prerequisite: MATH 336 or instructor's consent)

MATH 490* I NDEPENDENT STUDY: UNDERGRADUATE (3) Intensive study of a topic in mathematics under the direction of a faculty member. (Prerequisites: Consent of the instructor)

MATH 499* SEMI NAR (3) Various topics in mathematics discussed. (Prerequisite: I nstructor's consent)

## GRADUATE CREDIT

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 535 ALGEBRA FOR TEACHERS (3) Sets, real number system, theory of polynomials, elemen-tary 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 func-tions; Fourier series; orthonormal systems and generalized Fourier series, applications to boundary value problems. (Prerequisites: MATH 243 and 251)

MATH 578 LAPLACE TRANSFORMS (3) Definitions and elementary properties; transform of discon-tinuous 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. (Prerequi-site: Graduate standing and twelve [12] hours of senior undergraduate or graduate mathematics)

MATH 631 INTRODUCTI ON TO THE FOUNDATI ONS OF MATHEMATICS (3) Evolution of Math-ematical ideals and methods, relations to logic; the axiomatic method; the infinite paradoxes; contradic-tions. (Prerequisite: Graduate standing)

MATH 633 THEORY OF FUNCTI ONS 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 mea-sure, the Lesbeque integral. (Prerequisite: MATH 439)

MATH 634 THEORY OF FUNCTI ONS OF COMPLEX VARI ABLES (3) The fundamental part of the theory of functions of a complex variable; complex number system, limits continuity, derivatives of com-plex 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 FUNCTI ONAL ANALYSIS (3) Introduction to functional analysis: finite and
infinite dimen-sional vector spaces norms and inner products, Banach space, Hilbert space, Lspace, 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 251)

MATH 732 THEORY OF NUMBERS (3) Elementary properties of integers, the theorems of Fermat and Wilson the theory of congruencies, 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 I NDEPENDENT STUDY: Graduate standing / approval of advisor.
MATH 831 THEORY OF PROBABI LITY (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 MATHEMATI CAL STATI STI CS (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)

INDUSTRIAL TECHNOLOGY

## MASTER OF SCIENCE IN INDUSTRI AL TECHNOLOGY

## 1. GENERAL PROGRAM DESCRIPTI ON

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 technology to meet the challenges of high technology in the public and private sectors.

Program Objectives: Specific objectives of the program include:
a) Preparing technology educators and administrators for positions in secondary and post-secondary schools.
b) Preparing individuals to function as technology training directors in firms or agencies involved with high technology applications.
c) Preparing technology students for additional study toward the terminal degree.
d) 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 decisions making in a technological setting.

## 2. ENTRY REQUI REMENTS

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. In any case, undergraduate studies must include 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.

## 3. CURRI CULUM

The curriculum for the Master of Science in Industrial Technology degree consists of thirty-six (36) semester credit hours of approved graduate courses, including twenty-one (21) hours of core curriculum, 3-6 hours of integrative component, 6-9 hours of program electives, and no more than six (6) hours of other elective courses. The program offers two options; thesis and non-thesis. The thesis option requires thirty (30) hours of course work and six (6) hours of thesis; the non-thesis option involves thirty-three (33) hours of courses and three (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 approval, during the first semester of enrollment. The degree plan indicates chosen program option (thesis, special project, or internship), as well as courses to be completed for the degree. An approved copy of the degree plan must be filed at the Graduate School by the second semester of enrollment.

## A. Core Curriculum 21

ITEC 620 STATI STI CAL PROCESS CONTROL (3) 3
ITEC 625 OPERATI ONS RESEARCH FOR TECH (3) 3
ITEC 634 HUMAN RESOURCE DEVELOPMENT (3) 3
ITEC 635 TECHNOLOGY \& ENVIRONMENT (3) 3
ITEC 638 INDUSTRIAL SAFETY \& ERGONOMICS (3) 3
ITEC 640 COMPUTER APPLICATIONS (3) 3
ITEC 690 GRADUATE SEMINAR (1) 3

## B. I ntegrative Component 3-6

ITEC 692 SPECIAL PROBLEMS IN TECHNOLOGY (3) 3
ITEC 695 TECHNICAL INTERNSHIP (3) 3
ITEC 699 THESIS RESEARCH (3) 3

## C. Program Electives 6-12

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

## D. Other Electives 0-6

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, encourage to select courses that compliment their primary field of study. Consultation with the program advisor is recommended.

## 4. DEGREE REQUI REMENTS

In addition to the requirements of the Graduate School, candidates for the M.S. in Industrial Technology must complete the thirty-six (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 technical (internship/special project) report. The comprehensive examination may be attempted only upon completion of eighteen (18) hours of core-curriculum courses, and internship 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.
5. Planned Schedule of Course Offerings

| COURSE | FALL | SPRING | SUM <br> $\mathbf{1}^{*}$ | SUM <br> $2^{*}$ |
| :--- | :--- | :--- | :--- | :---: |
|  |  |  |  |  |


(*) = Summer course offerings are contingent on budget availability
$\left({ }^{* *}\right)=$ Program Elective courses will be offered every other year in term indicated.
PROTOTYPE SCHEDULE FOR FULL-TI ME STUDENT


6. DESCRIPTION OF COURSES

## 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 information 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; 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 U.S. and impact of technological changes; comparison with other industrialized nations and implications for global competition.

## ITEC 634 - Human Resource Development (3)

Examination of the human resource in industrial operations with emphasis 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 - Industrial Safety \& Ergonomics (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, CNC, CAD/CAM, and automation; applications and benefits of CIM . Prerequisite: ITEC 640

## 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.
Prerequisite(s) ITEC 625, 640

## 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. Prerequisite(s) ITEC 625, 640.

## 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 economics of current and emerging manufacturing technologies for industrial applications, including automation, CIM, FMS, JIT, etc.

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 credits.

ITEC 692 - Special Problems in Technology (3)
Individual study, which may be laboratory of field based, of a special technical problem of interest. A written report is required.

## Prerequisite: Completion of core curriculum and approval of program coordinator. 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. Prerequisite: Completion of core curriculum and approval of program coordinator.

## ITEC 699 - Thesis Research (3)

Direct investigation of special problems in technology; research to be reported in a thesis showing substantive depth and clear organization and presentation. Prerequisite: Completion of core curriculum and approval of program coordinator.

## TRANSPORTATION PLANNING \& MANAGEMENT

## DEPARTMENT OF TRANSPORTATI ON STUDI ES MASTER OF SCIENCE DEGREE <br> TRANSPORTATI ON PLANNI NG \& MANAGEMENT http:/ / transportation.tsu.edu/

## GENERAL I NFORMATI ON

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.


#### Abstract

MI SSI ON 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 OBJ ECTI VES

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 ADMI SSI ON

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 or visit the website at http://www.tsu.edu/academics/graduate/..
Detailed information on the application steps can be found and downloaded at http://transportation.tsu.edu/.

## ADMI SSI ON OF I NTERNATI ONAL 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.

## 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 $3.0(A=4.00)$ 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 uses 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.

## I NTERNSHIP

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. Placement of internships will be sought with various public/private transportation agencies and firms. Students choosing this track must enroll in the 3 -hour internship class.

## DEGREE REQUI REMENTS

Master of Science in Transportation
Total Semester Credit Hours Required: 39
Core Curriculum ............................................................................ 15 SCH
Thesis Option
$\qquad$
Thesis
15 SCH
9 SCH
Non-Thesis Option
$\qquad$
$\qquad$
Total ................................................................................. 39 SCH
CURRI CULUM SUMMARY

1. FOUNDATI ONS (Core Courses) 15 SCH
```
TMGT 810 (3) TMGT }812\mathrm{ (3)
TMGT 815 (3) TMGT }823\mathrm{ (3)
TMGT 830 (3)
```

2. CONCENTRATI ON AND ELECTI VE COURSES 15-21 SCH
A. PLANNI NGAND POLI CY

TMGT 820 (3) TMGT 840 (3) TMGT 842 (3)
TMGT 845 (3) TMGT 850 (3) TMGT 855 (3)
TMGT 862 (3) TMGT 865 (3) TMGT 880 (3)
TMGT 882 (3) TMGT 885 (3) TMGT 890 (3)
B. LOGISTICS AND MANAGEMENT

TMGT 820 (3) TMGT 825 (3) TMGT 842 (3)
TMGT 845 (3) TMGT 860 (3) TMGT 865 (3)
TMGT 870 (3) TMGT 875 (3) TMGT 880 (3)
TMGT 882 (3) TMGT 885 (3) TMGT 890(3)
C. SYSTEMS AND TECHNOLOGY

TMGT 840 (3) TMGT 842 (3) TMGT 845 (3)
TMGT 846 (3) TMGT 850 (3) TMGT 855 (3)
TMGT 862 (3) TMGT 865 (3) TMGT 880 (3)
TMGT 882 (3) TMGT 885 (3) TMGT 890 (3)
3. I NTERGRATI VE COMPONENT ....................................... 3-9 SCH TMGT 895 (3) TMGT 899 (3)

## COURSE DESCRI PTI ONS

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 guide ways, 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 842: Transportation Project Implementation (3)

Project implementation is a key outcome of the transportation planning and management process. Environmental impact statement, and citizen involvement are critical elements leading to implementation. Students enrolled in this course will learn the federal requirements and environmental process relating to transportation projects, project management strategies and software and learn how to incorporate citizen input into the design and implementation process.

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 846: Transportation I nfrastructure Management (3)
This course presents an integrated approach to the management of infrastructure systems. Analysis methods are developed recognizing the multidimensional nature of performance of facilities, resource constraints and technological innovations and institutional factors. Emphasis on an integrated approach to the design, construction, operations, maintenance and rehabilitation of facilities is through an understanding of the performance of facilities, approaches to management and available tools and developing technologies.

## 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 860: Transportation Special Lectures (3)
This course invites transportation engineers, planners, and managers from both public and private organizations to give special lectures on various transportation topics.

## 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, shockwave 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 splitphase; 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 875: Ports and Waterway (3)

This course presents problems and issues related to ports and waterway transportation.
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 882: Geographical I nformation Systems for Transportation (3)

This course will include three parts. The first part will introduce the basic concepts of GIS system, including the definition of GIS, the data structures that support spatial and attribute data, coordinate system, map projections and so on. In the second part, the basic skills of ArcGIS software package will be taught through lectures and laboratory work. The third part will introduce some feature GIS applications in transportation, such as GPS data analysis for deriving travel time information, transit bus stops and routes design, hurricane evacuation route design and monitoring, identifying hot spots of accidents, etc.

TMGT 885: Quantitative Assessment of Transportation Environmental Impact (3)
This course will include five parts. The first part will discuss the overall effects of transportation and related activities on the environment and present the indicators of these impacts. The second part will introduce the environmental laws and regulations in transportation and their roles in the project development process. The third part will focus on the air quality impacts of transportation. The fourth part of this course will focus on the transportation noise issues. In the last part of this course, the solutions or the traffic management strategies for mitigating the environmental impacts of transportation will be introduced.

## 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.


[^0]:    * Pharmaceutics Track

