


[Financial Information](#)
[The Graduate School](#)
[Academic Regulations](#)
[Student Life](#)
[Student Services](#)
[Colleges and Degree Programs](#)

General Information

Welcome to the University of Texas at El Paso (UTEP)! UTEP is a nationally recognized institution where the faculty and staff are wholly dedicated to your academic success. A broad range of academic programs are offered to encourage students to become involved in the discovery and creation of knowledge. UTEP is a friendly place—relationships are easy to develop with fellow students, staff members, and faculty. The following pages of this catalog introduce you to our policies, our degrees, majors and minors, and curricula. As you review them, we hope you know that our commitment to you is to offer the highest quality education in a supportive community of faculty and staff.

OUR HISTORY

The University of Texas at El Paso (UTEP) has created a foundation of academic excellence as strong as the rugged Rocky Mountain foothills that are the University's home. Located on the U.S.-Mexico border in El-Paso-Juárez, a binational metropolitan area of more than two million people, UTEP is the largest Mexican-American-majority university in the United States. In this unique multicultural setting, the University offers a wide scope of academic programs and outstanding support services, providing academic excellence for students.

UTEP, the second oldest academic institution of The University of Texas System, was established in 1914 as the Texas State School of Mines and Metallurgy to prepare professionals for the mining industry of the southwestern U.S. and Mexico. From its inception, the campus has featured architecture derived from the Himalayan kingdom of Bhutan. UTEP's unique buildings are the only examples of this ancient architecture in the Western Hemisphere. The motif, characterized by thick, sloped outer walls accented with a band of elaborate brickwork, was suggested by Kathleen Worrell, the wife of the college's first dean, after she saw photographs of Bhutanese monasteries in an issue of *National Geographic*. Noted El Paso architect Henry Trost designed the first buildings, and architects have continued the theme through more than 80 years of campus expansion.

The college's curriculum expanded in 1927 with the addition of liberal arts courses. The first Master of Arts degree was established in 1940. The institution was renamed Texas Western College in 1949 and the University of Texas at El Paso in 1967. Since then, enrollment has grown to over 20,000 students, and the scope of programs has expanded to include 81 Bachelor's, 78 Master's, 14 Doctoral degrees and 3 combined degrees (Bachelors/Masters or Masters/Masters) to meet the needs of an increasingly industrialized and more diverse West Texas.

The 367-acre UTEP campus has consists of over 4 million square feet in 87 buildings with facilities to support academic and physical excellence. The 125,000 square foot Undergraduate Learning Center features multimedia computer and

distance learning technology. The UTEP Library has over 1 million books, the new Collaborative Learning Center with 224 computers and a lobby café enriched with Bhutanese art. The 362,000 square foot Engineering Sciences Complex houses many research opportunities for students in facilities like the W.M. Keck Center for 3D Innovation with \$4 million of equipment, including 17 rapid prototyping machines and facilities for tissue engineering. Nearby the Biosciences Research Building provides state-of-the-art equipment to address biomedical and environmental problems. Well-equipped computer laboratories are located throughout the campus. The Fox Fine Arts complex has galleries, recital halls and studios for exploring art, theatre, music and dance. The Don Haskins Center, the 52,247-seat Sun Bowl Stadium and Larry K. Durham Sports Center provide student athletes a range of resources including a strength and conditioning center; a sports medicine center; a student-athlete lounge and computer center; locker rooms; coaches' offices; meeting rooms; and a "Hall of Champions."

With its pivotal setting on the U.S.-Mexico border, UTEP is a nationally recognized leader for creating excellent academic opportunities for a largely first-generation student population. Quality academic programs and a robust research agenda mark UTEP as an innovative force in American higher education for the 21st century.

OUR MISSION

The University of Texas at El Paso is dedicated to the advancement of the El Paso region through education, creative and artistic production, and the generation, interpretation, application and dissemination of knowledge. UTEP embraces its role as an intellectual, cultural and socioeconomic asset to the region, offering programs to meet human resource needs and contribute to the quality of life.

As a public university, UTEP is committed to providing access and opportunity to the people of the El Paso region and the State of Texas. UTEP's mission of ensuring access is coupled with a commitment to excellence reflected in rigorous programs, which prepare students to make significant contributions to their professions, their communities and the world.

As a research/doctoral institution, UTEP fosters a climate of scholarly inquiry, with a special focus on applying innovative interdisciplinary approaches to explore and address major issues that confront the U.S.-Mexico border region.

OUR VISION

The University of Texas at El Paso will serve as a gateway to an improved quality of life for people of the El Paso region, which includes far west Texas, northern Mexico and southern New Mexico.

UTEP will offer a broad range of undergraduate, professional and doctoral programs that support the workforce needs of the region and the state, and will provide lifelong educational opportunities.

UTEP will be recognized as the preeminent institution fostering the widest range of participation and, at the same time, enabling the success of students, especially from socioeconomic groups that have been traditionally excluded from higher education.

UTEP graduates will be aggressively recruited by employers and the most selective graduate and professional schools in the country.

UTEP graduates will be prepared to engage in civic affairs and make meaningful contributions to society.

The University will be nationally and internationally recognized for its exemplary accomplishments in developing and applying knowledge about emergent issues.

Building on the core disciplines, the University will use innovative and multidisciplinary approaches and capitalize on its U.S.-Mexico border context and resources to address major issues that confront the region

UTEP's centers of excellence will be at the forefront of addressing emergent national problems in areas such as homeland security, national defense, Hispanic health and Hispanic education

The El Paso Collaborative for Academic Excellence will be recognized as the preeminent model for improving academic achievement in K-16 students by

engaging the educational community, civic organizations, local leaders, philanthropic agencies and researchers.

The University will be recognized for integrating research which engages students, cultivates intellectual curiosity, and promotes creative thinking into the undergraduate curricula

UTEP will be internationally recognized for its artistic and creative productions that are shaped by the confluence of cultures, values and aesthetics of the U.S.-Mexico border region

UTEP will serve as the economic and social engine for the region

UTEP will be an accessible resource for the region.

UTEP will be an engaged partner in supporting and enhancing the cultural, artistic and athletic activities of the region.

UTEP will integrate public service into teaching, learning and research activities.

OUR STUDENT BODY

Students who attend UTEP come from a varied mix of social, cultural, and economic backgrounds that closely mirror the population of the El Paso/Ciudad Juárez region. Approximately 73 per cent of UTEP's students are Hispanic, almost 66 percent work while in college, and over half are first-generation college students. UTEP students typically represent more than 47 states and 74 countries, with about 8 percent coming from Mexico.

ACCREDITATION

The University of Texas at El Paso is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097/ telephone number: 404-679-4500) to award bachelor's, master's, and doctoral degrees. Information on accreditation by separate accrediting bodies for specific programs is shown in the specific college sections of this catalog.



FINANCIAL INFORMATION

[Financial Assistance](#)

- [Merit-Based Awards](#)
- [Need-Based Awards](#)
- [Financial Support](#)

[Tuition and Fees](#)

[On-Campus Housing Expenses](#)

[Residency for Tuition Purposes](#)

- [Residency](#)
- [Student Responsibilities](#)







Financial Assistance

UTEP's graduate students can finance their education by working and/or by taking advantage of the University's financial assistance awards and programs. Financial aid is divided into the following types: merit-based and need-based. Merit-based awards are granted on the basis of the student's previous academic performance. Need-based aid is awarded according to the level of the student's financial need, with some consideration of the student's past academic performance.

Students subject to selective service registration will be required to file a statement that the student has registered or is exempt from selective service registration in order to be eligible to receive financial assistance funded by State revenue – in accordance with Texas Education Code Sect. 51.9095.

MERIT-BASED AWARDS

Merit-based awards consist of scholarships and fellowships. Scholarships are primarily awarded on the basis of the student's previous academic work but may consider any required test scores. Fellowships are generally awarded according to a student's exceptional academic work and/or previous or proposed research in the student's field of study. For further information, students should contact the Graduate School.

NEED-BASED AWARDS

The Financial Aid Office processes need-based awards. The amount and type of financial assistance provided will be by means of educational loans, grants, need-based scholarships, and student employment (Federal College Work-Study). Certain emergency loan funds or fee exemptions may also be available. Students admitted into graduate programs are eligible if they have documented need, meet academic eligibility criteria, enroll at least half-time basis, and meet the March 15th financial aid application priority date. Financial aid recipients must make satisfactory academic progress in order to maintain award eligibility. Information about financial aid application procedures and standards for academic progress may be obtained from the Financial Aid Office.

FINANCIAL SUPPORT

Limited financial support is also available through research fellowships to participants in sponsored research or other research projects. Fellowship support may qualify for a waiver of non-resident status for tuition purposes. For fellowship and assistantship eligibility, students should contact the academic departments.

The publication *Graduate Assistantships Guide*, available from the Graduate School, provides additional information.

Graduate Assistantships

Teaching and Research Assistantships may be available based on merit qualifications. Teaching assistants perform assigned instructional duties under the supervision of a faculty member. Research assistantships are highly variable and usually involve assisting a faculty member in the accomplishment of certain research projects. The total of all on-campus student employment is limited to 20 hours per week or less. The application form is available at academic departments, colleges, and the Graduate School and should be completed by the student and submitted to the academic department of the student's major. The *Graduate Assistantships Guide* provides detailed information on eligibility, benefits, and procedures for appointments and is available at the Graduate School.

Criminal Background Checks

This policy applies to all University or contracted employment positions, whether full-time, part-time or temporary, faculty, staff or student positions, determined to be security sensitive by the University in accordance with *Texas Education Code* § 51.215(c) and *Texas Government Code* § 411.094(a)(2), as those sections may be amended from time to time.

Additional Employment Opportunities

Information about other forms of employment which may include the Cooperative Education Program, Internships, summer employment, or part-time employment may be obtained from the Career Services Office, Union West Building.





Tuition and Fees

The University of Texas at El Paso
Summary of Tuition and Fee Charges**
2008-2009

| Name of Charge | Classification | Residency | Amount | Notes |
|-----------------------------|--|--------------|---|---|
| Tuition: | | | | |
| | Graduate in Engineering/MASE/ESE Majors | Resident | \$191.70/sch* | |
| | | Non-Resident | \$472.70/sch* | |
| | Graduate in Business | Resident | \$201.70/sch* | |
| | | Non-Resident | \$482.70/sch* | |
| | Graduate in Health Sciences | Resident | \$199.70/sch* | |
| | | Non-Resident | \$480.70/sch* | |
| | Graduate in Nursing | Resident | \$209.70/sch* | |
| | | Non-Resident | \$490.70/sch* | |
| | Graduate in Liberal Arts or Education, Science | Resident | \$189.70/sch* | |
| | | Non-Resident | \$470.70/sch* | |
| Required Fees: | | | | |
| Student Services Fee | All Students | All Students | \$14.75/sch up to a maximum of \$177.00 | A compulsory fee to fund student-related services such as intramural activities, student government, disabled student organizations, career services, cheerleaders, student publications, health services, intercollegiate athletics, others. |
| Library Fee | Graduate Students | All Students | \$11.25/sch | A fee to purchase library materials, to replace maintain and acquire new equipment, and to provide technical support for personal computers and terminals. |
| Energy Fee | Graduate Students | All Students | \$2.50/sch | Fee for supporting utility expenses |
| Student Union Fee | All Students | All Students | \$30.00/semester | Fee may be used for finance, construction, operation, and maintenance of a student union building and its programs. |
| International Education Fee | All Students | All Students | \$4.00/semester | For funding an international education financial aid fund for University students. |
| Recreation Fee | All Students | All Students | \$20.00/semester | Fee for financing, constructing, maintaining, and operating new and existing recreational facilities and programs. |
| Registration Fee | All Students | All Students | \$5.00/semester | To defray the costs associated with technology services for telephone registration. |
| Technology Fee | All Students | All Students | \$16.50/sch, up to a | An incidental fee that |

| | | | | |
|---------------------------|---|--------------|---------------------|--|
| | | | maximum of \$247.50 | provides for development of campus computers and network facilities for students. |
| Health Center Fee | All Students | All Students | \$12.00/semester | Fee to provide support and medical services to the student population. |
| Incidental Fees: | | | | |
| Variety (See below) | All Students | All Students | Variable | For specific services such as late registration, library fines, add/drop fees, bad check charges, application processing fees, and others as approved by the governing board. |
| Laboratory Fees: | | | | |
| Variety (See below) | All Students (depending on courses taken) | All Students | Variable | Mandatory charges for certain laboratory courses; may not be less than \$2/semester nor more than \$30/semester and must not exceed the cost of actual materials and supplies used by a student. |
| Course Fees: | | | | |
| Variety (See below) | All Students (depending on courses taken) | All Students | \$10-\$50 | Charges in addition to regular tuition for certain course-related materials and/or for individual instruction. |
| Supplemental Fees: | | | | |
| Variety (See below) | Students desiring the specific service | All Students | Variable | To defray the costs of providing certain services to students. May include such items as parking fees, orientation fees, and installment tuition fees. |

* Tuition and fees are subject to change due to legislative and/or institution action and become effective when enacted.

**Non-resident/international students will be assessed the actual cost of education per semester hour as determined by the Texas Higher Education Coordinating Board.

The university of Texas at El Paso
Estimated Summary of Tuition and Fee Charges for a Semester
2008-2009 Academic Year

| Name of Charge | Graduate in Engineering/MASE/ESE | Graduate in Business | Graduate in Health Science | Graduate in Nursing | Graduate in Education/ Liberal Arts/ Science, |
|---|----------------------------------|----------------------|----------------------------|---------------------|---|
| | 9 SCH | 9 SCH | 9 SCH | 9 SCH | 9 SCH |
| Resident Tuition ¹ | 1,725.30 | 1,815.30 | 1,797.30 | 1887.30 | 1707.30 |
| Add: Required Fees² | | | | | |
| Student Services Fee | 132.75 | 132.75 | 132.75 | 132.75 | 132.75 |
| Library Fee | 101.25 | 101.25 | 101.25 | 101.25 | 101.25 |
| Student Union Fee | 30.00 | 30.00 | 30.00 | 30.00 | 30.00 |
| Registration Fee | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| Energy Fee | 22.50 | 22.50 | 22.50 | 22.50 | 22.50 |
| International Education Fee | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Recreational Fee | 20.00 | 20.00 | 20.00 | 20.00 | 20.00 |
| Technology Fee | 148.50 | 148.50 | 148.50 | 148.50 | 148.50 |
| Health Center Fee | 12.00 | 12.00 | 12.00 | 12.00 | 12.00 |
| Major Fee | 60.00 | 25.00 | | 107.00 | |
| Subtotal-Required Fees | 2,261.30 | 2,316.30 | 2,273.30 | 2470.20 | 2183.30 |
| Add: Average for college and course related laboratory, incidental, and supplemental fees, and/or optional student services fees | 75.00 | 75.00 | 75.00 | 75.00 | 75.00 |
| Total Charges: Tuition plus subtotal-required fees plus averages for college and course related fees and/or optional student services fees | 2,336.30 | 2,391.30 | 2,348.30 | 2545.30 | 2258.30 |
| Average Cost per Semester Credit Hour | 259.59 | 265.70 | 260.92 | 282.81 | 250.92 |

¹ Graduate tuition might be twice the statutory rates for undergraduate students. For graduate rates, consult the University *Graduate Catalog* or the most current *Class Schedule*.

² Required fees, those charged to all students, may be based on semester credit hours or may be per semester. Descriptions of these fees may be found on the following page or in the University catalog.

³ Averages are given for course-related, laboratory, incidental, and voluntary fees since changes vary according to courses and services chosen. Actual fees are published in the University catalogs and in the *Class Schedules*.

Note: Although unlikely, changes in tuition and fee charges may occur after the information is first published; updated information may be obtained from the Student Business Services Office at (915) 747-5116.

Note: The Texas Legislature does not set the specific amount for any particular student fee. The student fees are authorized by state statute; however, the specific amounts and the determination to increase fees are made by the University administration and the University of Texas System Board of Regents.

Tuition and Fees Increase

Tuition and fees provided herein represent the figures at the time of publication, are subject to change by regental or legislative action and become effective on the date enacted. The Texas Legislature does not set the specific amount for any particular student fee. The student fees assessed above are authorized by state statute; however, the specific fee amounts and the determination to increase fees are made by the university administration and The University of Texas System Board of Regents. Policies governing the payment or refund of tuition, fees and other charges are approved by the Board of Regents of The University of Texas System and comply with applicable state statutes.

TUITION AND REQUIRED FEES 2008-2009

| Hrs | Resident Graduate in ENGINEERING/MASE/ESE | Resident Graduate in BUSINESS | Resident Graduate in HEALTH SCIENCE | Resident Graduate in NURSING | Resident Graduate in EDUCATION/ LA /SCIENCE |
|-----|--|---|---|--|---|
| 1 | 307.70 | 317.70 | 315.70 | 325.70 | 305.70 |
| 2 | 544.40 | 564.40 | 560.40 | 580.40 | 540.40 |
| 3 | 781.10 | 811.10 | 805.10 | 835.10 | 775.10 |
| 4 | 1,017.80 | 1,057.80 | 1,049.80 | 1,089.80 | 1,009.80 |
| 5 | 1,254.50 | 1,304.50 | 1,294.50 | 1,344.50 | 1,244.50 |
| 6 | 1,491.20 | 1,551.20 | 1,539.20 | 1,599.20 | 1,479.20 |
| 7 | 1,727.90 | 1,797.90 | 1,783.90 | 1,853.90 | 1,713.90 |
| 8 | 1,964.60 | 2,044.60 | 2,028.60 | 2,108.60 | 1,948.60 |
| 9 | 2,201.30 | 2,291.30 | 2,273.30 | 2,363.30 | 2,183.30 |
| 10 | 2,438.00 | 2,538.00 | 2,518.00 | 2,618.00 | 2,418.00 |
| 11 | 2,674.70 | 2,784.70 | 2,762.70 | 2,872.70 | 2,652.70 |
| 12 | 2,911.40 | 3,031.40 | 3,007.40 | 3,127.40 | 2,887.40 |
| 13 | 3,133.35 | 3,263.35 | 3,237.35 | 3,367.35 | 3,107.35 |
| 14 | 3,355.30 | 3,495.30 | 3,467.30 | 3,607.30 | 3,327.30 |
| 15 | 3,577.25 | 3,727.25 | 3,697.25 | 3,847.25 | 3,547.25 |
| 16 | 3,782.70 | 3,942.70 | 3,910.70 | 4,070.70 | 3,750.70 |
| 17 | 3,988.15 | 4,158.15 | 4,124.15 | 4,294.15 | 3,954.15 |
| 18 | 4,193.60 | 4,373.60 | 4,337.60 | 4,517.60 | 4,157.60 |
| 19 | 4,399.05 | 4,589.05 | 4,551.05 | 4,741.05 | 4,361.05 |
| 20 | 4,604.50 | 4,804.50 | 4,764.50 | 4,964.50 | 4,564.50 |
| 21 | 4,809.95 | 5,019.95 | 4,977.95 | 5,187.95 | 4,767.95 |
| Hrs | Non-Resident Graduate in ENGINEERING/MASE/ESE | Non-Resident Graduate in BUSINESS | Non-Resident Graduate in HEALTH SCIENCE | Non-Resident Graduate in NURSING | Non-Resident Graduate in EDUCATION/ LA /SCIENCE |
| 1 | 613.70 | 623.70 | 621.70 | 631.70 | 611.70 |
| 2 | 1,131.40 | 1,151.40 | 1,147.40 | 1,167.40 | 1,127.40 |
| 3 | 1,649.10 | 1,679.10 | 1,673.10 | 1,703.10 | 1,643.10 |
| 4 | 2,166.80 | 2,206.80 | 2,198.80 | 2,238.80 | 2,158.80 |
| 5 | 2,684.50 | 2,734.50 | 2,724.50 | 2,774.50 | 2,674.50 |
| 6 | 3,202.20 | 3,262.20 | 3,250.20 | 3,310.20 | 3,190.20 |
| 7 | 3,719.90 | 3,789.90 | 3,775.90 | 3,845.90 | 3,705.90 |
| 8 | 4,237.60 | 4,317.60 | 4,301.60 | 4,381.60 | 4,221.60 |
| 9 | 4,755.30 | 4,845.30 | 4,827.30 | 4,917.30 | 4,737.30 |
| 10 | 5,273.00 | 5,373.00 | 5,353.00 | 5,453.00 | 5,253.00 |
| 11 | 5,790.70 | 5,900.70 | 5,878.70 | 5,988.70 | 5,768.70 |
| 12 | 6,308.40 | 6,428.40 | 6,404.40 | 6,524.40 | 6,284.40 |
| 13 | 6,811.35 | 6,941.35 | 6,915.35 | 7,045.35 | 6,785.35 |
| 14 | 7,314.30 | 7,454.30 | 7,426.30 | 7,566.30 | 7,286.30 |
| 15 | 7,817.25 | 7,967.25 | 7,937.25 | 8,087.25 | 7,787.25 |
| 16 | 8,303.70 | 8,463.70 | 8,431.70 | 8,591.70 | 8,271.70 |
| 17 | 8,790.15 | 8,960.15 | 8,926.15 | 9,096.15 | 8,756.15 |
| 18 | 9,276.60 | 9,456.60 | 9,420.60 | 9,600.60 | 9,240.60 |
| 19 | 9,763.05 | 9,953.05 | 9,915.05 | 10,105.05 | 9,725.05 |
| 20 | 10,249.50 | 10,449.50 | 10,409.50 | 10,609.50 | 10,209.50 |
| 21 | 10,735.95 | 10,945.95 | 10,903.95 | 11,113.95 | 10,693.95 |

* This table of Tuition and Mandatory Fees does not include incidental fees, course-related fees, or individual major fees. Please refer to other sections in this catalog.

**Tuition and fees are subject to change due to legislative and/or institution action and become effective when enacted.

In addition to the above quoted tuition and fees, the following must be added as appropriate:

SUPPLEMENTAL FEES

New Student

Student ID Fee - \$6.00 one time issuance fee

Student ID Replacement Fee - \$20.00

Student General Property Deposit - \$10.00 per student (one time deposit) fee assessed at the time of the student's initial registration at the University. This fee is refundable to the student at the end of his or her University enrollment less any loss, damage, or breakage caused by the student. A property deposit which remains without call for refund for a period of four years from the date of last attendance at the University will be forfeited and will become the property of the Student General Property Deposit Endowment Fund. Such funds will be invested and the income will be used for scholarship purposes.

Certain Declared Majors

- Business Graduate Major Fee - \$25.00 per semester with a declared major in business
- Clinical Laboratory Science Major Fee - \$180.00 per semester with a declared major in clinical laboratory science.
- College of Engineering Major Fee - \$60.00 per semester with a declared major within the College of Engineering.
- Nursing Major Fee - \$107.00 per semester with a declared major in Nursing.
- Occupational Therapy Major Fee - \$75.00 per semester with a declared major in Occupational Therapy.
- Physical Therapy Major Fee - \$50.00 per semester with a declared major in Physical Therapy

ADDITIONAL REQUIRED FEE

GRADUATE STUDENT SERVICE FEE for AMBA PROGRAM - \$75.00 per semester credit hour.

International Student (ONLY):

- International Student Services Fee - \$25.00 per student per term

LABORATORY FEES

| | | |
|------|--|----------|
| ARTG | 5350 | \$ 20.00 |
| BIOL | 5302, 5502 | \$ 30.00 |
| BIOL | 5305, 5318, 5324 | \$ 8.00 |
| BIOL | 5351, 5352, 5354, 5355 | \$ 30.00 |
| CERM | 5350 | \$ 18.00 |
| CHEM | 5341 | \$ 30.00 |
| GEOL | 5343, 5344, 5367, 5375, 5376, 5405 | \$ 20.00 |
| GEOP | 5357 | \$ 20.00 |
| GEOP | 5362 | \$ 25.00 |
| MTLS | 5350 | \$ 30.00 |
| PNTG | 5350 | \$ 12.00 |
| PRNT | 5350 | \$ 30.00 |
| PT | 5317, 5319, 5320, 5407, 5408, 5411, 5412, 5418, 5521 | \$ 4.00 |
| PT | 5311, 5409 | \$ 5.00 |
| PT | 5406 | \$ 30.00 |
| SCUL | 5302, 5350 | \$ 30.00 |

COURSE FEES

| | | |
|------|------------------------------|----------|
| ART | 5393 | \$ 10.00 |
| ARTE | 5399 | \$ 10.00 |
| ARTG | 5350 | \$ 10.00 |
| ARTH | 5329 | \$ 5.00 |
| CERM | 5350 | \$ 10.00 |
| DRAW | 5350 | \$ 10.00 |
| ECON | 5334, 5366, 5368, 5370, 5371 | \$ 30.00 |
| KIN | 5361, 5371, 5372, 5374 | \$ 25.00 |
| MTLS | 5350 | \$ 10.00 |
| MUSA | 5281 | \$ 35.00 |
| MUSA | 5381, 5391 | \$ 50.00 |
| PNTG | 5350 | \$ 10.00 |
| PRNT | 5350 | \$ 10.00 |
| PSYC | 5301 | \$ 20.00 |
| PSYC | 5333 | \$ 25.00 |
| PSYC | 5398, 5399, 6320, 6321 | \$ 30.00 |
| SCUL | 5302, 5350 | \$ 10.00 |
| SPLP | 5369, 5373 | \$ 20.00 |

INCIDENTAL FEES

ADD/DROP FEE - A fee of \$5.00 is assessed per transaction each time a change is made to the initial registration.

AUDIT FEE - A fee of \$10.00 per audited course will be assessed to a student who is currently enrolled at the University. For a person who is not enrolled at the University, a fee of 30.00 per course will be assessed.

CATALOG FEE - A fee of \$3.00 will be assessed to students who pick up the University Catalog. A fee of \$4.50 will be assessed to students that request a University Catalog be mailed. A fee of \$1.00 per catalog on CD.

CERTIFICATION DEFICIENCY PLAN PREPARATION FEE - A fee of \$20.00 is assessed to defray administrative costs of processing certification deficiency plans for those pursuing teacher certification.

CLINICAL LAB SCIENCE MAJOR FEE - A fee of \$180.00 per semester will be assessed.

CLINICAL TRACKING & EVALUATION FEE - A fee of \$50.00 will be assessed to defray costs.

COLLEGE OF BUSINESS PhD SERVICES FEE - A fee of \$100 per semester to support cost of College of Business PhD program(s).

DIPLOMA FEE - A fee of \$30.00 is required of candidates for graduation. Under no circumstance is this fee subject to refund. Veterans attending the University under an exemption as defined elsewhere in this section are not exempt from payment of this fee.

DIPLOMA LATE FEE - A fee of \$15.00 will be assessed to all graduation candidates who apply for graduation after the regular processing period has been completed. Under no circumstances is this fee subject to refund. Veterans attending the University under an exemption defined elsewhere in this section are not exempt from payment of this fee.

DIPLOMA REPLACEMENT FEE - Diplomas are replaced at student's request, if the student has lost the diploma or if the student's name has changed. A fee of \$30.00 will be assessed to a student requesting a replacement after one year. A fee of \$10.00 is requested within one year of order.

DISSERTATION FEE - A fee of \$55.00 will be assessed for on-line submission and publication of the dissertation.

DISTANCE EDUCATION FEE - A \$50.00 per semester credit hour will be assessed to defray costs associated with providing distance learning facilities and support for students enrolling in distance learning classes or other off-campus course(s).

enrolling in distance learning classes or other off-campus courses).

EMERGENCY LOAN PROCESSING FEE - A fee of \$15.00 will be assessed to defray administrative costs incurred in processing and collecting emergency loan payments.

EQUIPMENT SUPPORT FOR ELECTRICAL AND COMPUTER ENGINEERING - A fee of \$25.00 per semester to support cost of open laboratory operations for Electrical and Computer Engineering and Computer Science.

GRADUATE SCHOOL ADMISSION APPLICATION FEE - A fee will be assessed for all students who apply for graduate admission; \$45.00 for U.S. citizens and permanent residents/Mexican nationals or \$65.00 for all international applicants.

GRADUATE SCHOOL ADMISSION APPLICATION LATE FEE - A fee of \$15.00 will be assessed to cover costs of processing late applications.

Note: Application fees are subject to change due to legislative and/or institution action and become effective when enacted.

GRADUATE STUDENT SERVICES FEE for AMBA Program - A fee of \$225 per course will be assessed to students enrolled in the Accelerated MBA program.

HEALTH INSURANCE FEE - (A mandatory insurance required of international students holding nonimmigrant visas and living in the United States.) The amount assessed will match the University Texas System Student Insurance Plan premium.

INSTALLMENT TUITION HANDLING FEE - A fee of \$17.00 per academic term will be assessed to cover costs related to providing the installment payment option.

INSTALLMENT TUITION DELINQUENCY FEE - A fee of \$15.00 per delinquent payment will be assessed to defray costs of handling delinquent installment tuition payment.

INSTRUMENT USERS FEE - Music - A fee of \$15.00 will be assessed to students per semester who wish to use musical instruments that are available through the Music Department.

INTERNATIONAL STUDENT SERVICE FEE - \$25.00 per long semester and \$12.50 per summer session. This fee is assessed to international students to defray the costs of operating the Office of International Programs and supporting the programs that are unique to international students.

IPED SUPPLEMENTAL FEE - A fee not to exceed \$200 per semester credit hour will be assessed to students enrolled in programs of the Institute for Policy and Economic Development related to for-credit training contracts.

LATE REGISTRATION FEE - Any student who, with proper permission, registers after the appointed days for registering will be required to pay a special charge of \$20.00 for the late telephone registration process, \$30.00 for in-person late registration, and \$50.00 on or after the first class day. The fee is to defray the cost of the extra services required to effect the late registration.

LIBRARY FEES - To cover costs associated with handling special items, damaged, and/or overdue books, the library charges the following fees:

Overdue Charges:

| | | |
|----------------------------|--|------|
| Regular Checkouts | \$0.25/day (\$25.00 max) | |
| Reserve Items | \$1.00/day-\$1.00/hr (\$25.00 max) | |
| Inter-Library Loans | \$1/request plus any charges from the lending library | |
| Lost Books | Cost of book plus \$10.00 processing fee and any fines accrued | |
| Inter-Library Loans | All costs charged by suppliers plus \$0.50/request (or \$2.00 per request for rush | fee) |
| Computer Searches | 115% of connect time plus any off-line print charges | |
| Damaged Book Fee | \$10.00 | |
| Recall Fee | \$1.00/day (\$25.00 max) | |
| Media-Charges | Varies depending on type of equipment/service | |
| Photocopier | \$0.05 to \$0.50/copy | |
| \$0.15/microfilm or fiche | | |
| Architectural Drawings and | | |
| Blueprint Reprographic Fee | \$5.00 per item plus actual costs | |
| Special Collection | | |
| Photographic Reproduction | | |
| Preservation Fee | \$5.00 plus actual costs | |
| Student Fee | \$5.00 per semester credit hour/graduate | |

NURSING MAJOR FEE - A fee of \$107.00 per semester will be assessed of all nursing majors.

PROFESSIONAL LIABILITY INSURANCE FEE - A fee of \$10.00-\$80.00 will be assessed to defray costs of insurance for students working in clinical settings in courses in health science, nursing, speech-language pathology, and social work.

REINSTATEMENT FEE - A \$200.00 fee will be assessed to cover costs related to reinstating an enrollment after students have been disenrolled for failure to meet University obligations.

REPEATED COURSE FEE - A \$100.00 per credit hour fee will be assessed to all students attempting to complete a course for the third time and thereafter.

RETURNED CHECK FEE - A fee of \$30.00 per check will be assessed to students that issue payment to the University with a check that is returned to the University for insufficient funds.

SCIENCE AND ENGINEERING ENRICHMENT EXPERIENCE - A fee of \$50.00 will be assessed to all incoming freshman and transfer students attending the enrichment experience in the College of Science and College of Engineering to defray costs associated with the enrichment program.

SOCIAL WORK HANDBOOK FEE - A \$2.00 fee will be assessed to students in Social Work for a handbook required by the Council of Social Work Education

SPECIAL EXAMINATION FEE - A fee of \$5.00 per examination is required of persons who wish to take an advanced standing examination, an examination to remove a condition, or an examination to be given at a time other than that for which it is regularly scheduled. Permission of the academic dean must be secured before payment is made.

STUDENT HOUSING DEPOSIT - A \$200.00 deposit will be assessed to all students applying for Residence Hall housing. A Student Housing Deposit will be forfeited under any of the following conditions.

- A Housing Deposit which remains without call for refund for a period of two (2) years from the date of last attendance at the University;
- For any reason of non-payment of rent and will be applied to the outstanding balance owed to the University and/or applied for repairs and damages (except for reasonable wear and tear) to the unit leased; or
- Failure of a student to abide by the Terms and Conditions of Occupancy and/or the University Regulations or Residence Hall Regulations resulting in the University terminating a Residence Hall Agreement.

STUDENT IDENTIFICATION CARD ISSUANCE FEE - A fee of \$6.00 per student will be assessed for the new Maroon Gold ID card. The fee is a one-time fee that is assessed only on

STUDENT IDENTIFICATION CARD ISSUANCE FEE - A fee of \$0.00 per student will be assessed for the new Miner Gold I.D. Card. The fee is a one-time fee that is assessed only on initial issuance.

STUDENT IDENTIFICATION CARD REPLACEMENT FEE - A fee of \$20.00 per card will be assessed students for reissuing a Student I.D. Card due to loss or destruction. Malfunctioning cards or cards that fail to operate will be replaced at no charge.

STUDENT TEACHING FEE - A fee of \$50.00 will be assessed to students approved for Student Teaching during the Fall and Spring semesters.

TEACHER CERTIFICATION CREDENTIALS FEE - A fee of \$10.00 will be assessed to students enrolled in the Teacher Education Program who are having their academic credentials evaluated for meeting certification requirements set by the Texas Education Agency.

TEST FEE - Students requesting administration of graduate or undergraduate admission testing, professional certification testing, GED testing, or placement and credit testing will be assessed a fee ranging from \$5.00 to \$42.00 per test based on the test subscription costs.

THESIS FEE - A fee of \$45.00 will be assessed for on-line submission and publication of the thesis.

TRANSCRIPT FEE - A fee of \$2.00 will be assessed to students for an unofficial copy of their transcript. A fee of \$5.00 will be assessed for an official copy. A fee of \$7.00 will be assessed for an official copy with immediate processing.

DISTANCE LEARNING (RESIDENT) TUITION AND FEES*

(MBA, Med, Other UT TeleCampus Offerings)

| | |
|-------------------------------|---------------------|
| Tuition | \$151.70 sch |
| Differential Tuition | \$58.00 sch |
| Distance Learning Fee | \$50.00 sch |
| Energy Fee | \$2.50 sch |
| Technology Fee | \$16.50 sch |
| Library Fee | \$11.25 sch |
| Institutional Fees (estimate) | \$9.00 per semester |

Assessments based on 3 semester credit hours \$878.85

| | |
|-----------------------|----------|
| Tuition | \$455.10 |
| Differential Tuition | \$174.00 |
| Distance Learning Fee | \$150.00 |
| Energy Fee | \$7.50 |
| Technology Fee | \$49.50 |
| Library Fee | \$33.75 |
| Institutional Fees | \$9.00 |

If enrolled only in Distance Learning courses, the following fees are waived under this program: Activity Fee, Health Center Fee, Recreation Fee, Union Fee

* Distance Learning Tuition and Fees subject to change by action of the Texas Legislation and Texas Higher Education Coordinating Board. Changes will be effective as determined by the governing body.

Tuition for Resident Doctoral Student in Excess of 100 or More Credit Hours

Beginning Fall 1999 semester, a resident doctoral student who has a total of 100 or more semester credit hours of doctoral work at an institution of higher education may be required to pay nonresident doctoral tuition rates. Students should contact the Graduate School for more information at (915) 747-5491.

MINER GOLD CARD

The Miner Gold card is the official identification card of the University of Texas at El Paso (University). The Miner Gold card is the property of the University and is non-transferable. All students must carry their Miner Gold card at all times while on University property in order to obtain services.

The Miner Gold card is issued to all students upon enrollment in at least one credit hour. A current photo ID (e.g. license, state ID, passport) must be presented before a Miner Gold card is issued. The Miner Gold card remains active as long as the student is enrolled in courses at UTEP. No article of clothing, hats or sunglasses on the head will be allowed when the photograph is taken.

All first time enrolled students will be assessed a one-time, non-refundable \$6.00 fee. Any card rendered unusable, damaged, lost, or stolen will be assessed a \$20.00 fee. A new photo will be taken every time a card is re-issued.

Various debit declining balance plans can be utilized by Miner Gold card holders. Enrollment in these plans is automatic. Participation is optional.

The University reserves the right to modify or change any or all parts of the Miner Gold card at any time. The Miner Gold card must be surrendered to University officials upon request.

For more information: Miner Gold card Office

Academic Services Building room 116

915.747.7334

www.utep.edu/minergold

PARKING FEES

The Board of Regents has approved parking fees as follows for those students desiring to park on the campus:

Classes of Permits and Annual Fees

Sun Bowl Parking Garage

Allows the holder to park in any Garage parking space designated for their particular class of permit.

Class PG-1 (Covered) \$250.00 All Students (including Graduates)
\$154.30 If purchased during the Spring Semester
\$ 75.52 If purchased during the Summer Session

Class PG-1 (Deck) \$200.00 All Students (including Graduates)
\$123.44 If purchased during the Spring Semester
\$ 60.42 If purchased during the Summer Session

Silver Parking Lots

Allows the holder to park in any Silver parking area designated for their particular class of permit.

Class S \$175.00 All Students (including Graduates)
\$108.01 If purchased during the Spring Semester
\$ 52.86 If purchased during the Summer Session

Perimeter Parking Lots

Allows the holder to park in any perimeter area designated for their particular class of permit.

Class P (Automobile) \$125.00 All Students (including Graduates)
\$ 77.15 If purchased during the Spring Semester
\$ 37.76 If purchased during the Summer Session

Class P (Motorcycle) \$ 75.00 All Students (including Graduates)
\$ 46.29 If purchased during the Spring Semester
\$ 22.86 If purchased during the Summer Session

Remote Parking Lots

Allows the holder to park in any remote area designated for their particular class of permit.

Class R (Automobile/ Motorcycle) \$ 75.00 All Students (including Graduates)
\$ 46.29 If purchased during the Spring Semester
\$ 22.86 If purchased during the Summer Session

Other Class Permits

Class H \$125.00 All Students (including Graduates)
(Inner Campus Disabled) \$ 77.15 If purchased during the Spring Semester
\$ 37.76 If purchased during the Summer Session
Class M \$ 50.00 All Miner Village Residents
\$ 30.86 If purchased during the Spring Semester
\$ 15.10 If purchased during the Summer Session
Replacement Decal With remnants of decal (Fee of \$5.00)
Without remnants of decal (Fee is \$20.00)

METHODS OF PAYMENT

Cash, Checks, Master Card, Visa, American Express, and Discover will be accepted for payment of tuition and fees. The University offers the following two payment methods during long semesters (Fall and Spring) only.

1. Full payment of tuition, mandatory and incidental fees at the time of registration.
2. 20% payment of tuition, mandatory and incidental fees at the time of registration, with the remaining balance due in 4 equal installments by the 15th of each month.

Items for which payment CAN be deferred under Method 2 include the following:

- Tuition
- Mandatory Fees (Library Fee, Student Services Fee, Student Union Fee, Health Center Fee, International Studies Fee, Technology Fee, Recreational Fee)
- Incidental Fees (Laboratory, Course-related Fees (such as Equipment Fees, Supplemental Fee for Fine Arts, Major Fees)

Items for which payment MAY NOT be deferred include the following:

- Student General Property Deposit
- Discretionary Fees (Liability Insurance, Health Insurance)
- Optional Fees (such as Parking Decal Fees)
- Amounts due for financial holds or from prior periods
- Optional Incidental Fees (such as Late Registration, Add/Drop, Installment Tuition Handling Fees, etc.)

The following additional policies will apply to deferral of payments:

1. All student account balances due from prior semesters, including items associated with payment deferred, must be paid in full before a student may begin registration for a

subsequent semester.

2. A payment plan selected at the time of registration will be binding and will be applied in any subsequent add/drop activities; however, pre-payment of outstanding balances will be accepted. The University shall assess the Installment Tuition Handling Fee of \$17.00 for those students choosing payment Method 2; this charge is payable at the time of registration. An Installment Tuition Delinquency Fee of \$15.00 will be assessed at the end of the sixth and eleventh week of classes if the payment due for that period is not paid in full.
3. The Office of Student Business Services will send e-mail notifications as appropriate to students paying tuition and fees under Method 2.
4. The courses for which a student is enrolled on the official census date-12th class day in a long semester will be the basis for the student's tuition and fees assessment. Except for students who officially withdraw up to the end of the refund period as indicated in the Class Schedule, no reduction in amounts due will be made after this date; further, the student is obligated to pay the assessed amounts whether or not class attendance is subsequently interrupted or terminated.
5. A student who fails to provide full payment of tuition and fees, including any late fees assessed, to the University when the payments are due is subject to one or more of the following:
 - a. Bar against registration at the institution;
 - b. Withholding of grades, degree, and official transcript; and
 - c. All penalties and actions authorized by law.

REFUND OF TUITION AND FEES

Refund policies are established by, and are subject to change by, the Legislature of the State of Texas and are applicable to withdrawals and dropped courses. Refunds of tuition, laboratory fees, general fees, and student services fees will be made under the following conditions.

Withdrawals

Students withdrawing during a long semester will be refunded applicable tuition and fees as follows:

| | |
|-------------------------------|-------------------|
| Prior to the first class day | 100% less \$15.00 |
| During first five class days | 80% |
| During second five class days | 70% |
| During third five class days | 50% |
| During fourth five class days | 25% |
| After fourth five class days | No Refund |

Students withdrawing during a summer term will be refunded applicable tuition and fees as follows:

| | |
|--|-------------------|
| Prior to the first class day | 100% less \$15.00 |
| 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 |

Students withdrawing from a term or session of more than five weeks but less than 10 weeks will be refunded applicable tuition and fees as follows:

| | |
|--|-----------|
| Prior to the first class 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 |

Students withdrawing from a term or session of five weeks or less will be refunded applicable tuition and fees as follows:

| | |
|--------------------------------|-----------|
| Prior to the first class day | 100% |
| During the first class day | 80% |
| During the second class day | 50% |
| Third class day and thereafter | No Refund |

Note: Percentage of refund is based on total tuition, mandatory and incidental fees assessed, not on amount paid. Unless students do a complete withdrawal from school prior to the first official class day, the student is responsible for a percentage of total tuition, mandatory and incidental fees assessed. Students should contact the Student Business Services Office at 747-5116 or (915) 747-5105 to address any questions.

Dropped Courses

Refunds of applicable tuition and fees will be made for courses from which students drop within the first twelve class days of a long session semester or an appropriately shorter period for a summer session term, provided the student remains enrolled for that semester or term. Refund of tuition for dropped courses will be made only if the original payment exceeds the established minimum amount.

Refunds of tuition and fees paid in the student's behalf by a sponsor, donor, or scholarship will be made to the source rather than directly to the student who has withdrawn or dropped courses, if the funds were made available through the University. Students who withdraw or drop courses must, in order to qualify for a refund, surrender all applicable privileges, including identification cards and athletic and cultural entertainment tickets. Refunds provided for above will be granted if applied for by the end of the semester in which the withdrawal or drop was appropriately completed. Refunds for students who owe balances on deferred payment of tuition/fees will be credited to the student's account, reduced by the amount of any unpaid charges and a reasonable administrative fee not to exceed the lesser of 5% of the tuition, fees, room and board, and other charges that were assessed for the enrollment period, or one hundred dollars.

Refunding for Student in Title IV Programs

As an institution participating in programs under Title IV of the Higher Education Act of 1965 as amended ("Act"), The University of Texas at El Paso is required to refund unearned tuition, fees, room and board, and other charges to certain students attending the institution for the first time who have received a grant, a loan, or work assistance under Title IV of the Act or whose parents have received a loan on their behalf under 20 U.S.C. Section 1087-2. The refund is required if the student does not register for, withdraws from, or otherwise fails to complete the period of enrollment for which the financial assistance was intended. No refund is required if the student withdraws after a point in time that is sixty percent of the period of enrollment for which the charges were assessed. A refund of tuition, fees, room and board, and other charges will be determined for students who withdraw prior to this time. The refund is the larger of the amount provided for in Section 54.006, Texas Education Code or a pro rata refund calculated pursuant to Section 484B of the Act. If the student charges were paid by Title IV funds, a portion or all of the refund will be returned to these programs.

TUITION AND FEES EXEMPTION SUMMARY

| DESCRIPTION | ELIGIBILITY | EXEMPTED CHARGES*** |
|---|--|---|
| <p>**Accredited School Scholarship (permissive), <i>Texas Education Code §54.201</i></p> | <ul style="list-style-type: none"> ■ Highest ranking graduate of an accredited Texas high school | <p>Tuition during first two semesters (long session) following graduation</p> |
| <p>Children of Texas veterans, <i>Texas Education Code §54.203</i></p> | <ul style="list-style-type: none"> ■ For children of members of the US armed forces who were killed in action, who die or died while in service, are MIA, whose death is documented to be directly caused by illness or injury related to service in the US armed forces or who become totally disabled for purpose of employability according to the Department of Veterans Affairs' disability rating as a result of a service-related injury. ■ For orphans or children of members of the Texas National Guard who after January 1, 1946, were killed while on active duty or become totally disabled for purpose of employability according to the Department of Veterans Affairs' disability rating as a result of a service-related injury. ■ Texas resident and resided in the state at least 12 months immediately preceding date of registration | <p>Tuition Laboratory fees General fee</p> <p>NOT TO EXCEED 150 CREDIT HOURS</p> |
| <p>Texas ex-servicemen, <i>Texas Education Code §54.203</i></p> | <ul style="list-style-type: none"> ■ Resided in Texas for 12 months prior to registration ■ A bona fide legal resident of Texas at time entered service ■ Served in armed forces in World War II, Korean Conflict, the Cold War, Vietnam, Grenada era, Lebanon, Panama, Persian Gulf ■ Honorably discharged ■ Not eligible for federal education benefits | <p>Tuition Laboratory fees General fee</p> <p>NOT TO EXCEED 150 CREDIT HOURS</p> |
| <p>Children of disabled/deceased Texas firefighters and law enforcement officers, <i>Texas Education Code §54.204</i></p> | <ul style="list-style-type: none"> ■ For children under 21 years of age (or 22 if the student was eligible to participate in special education under Texas Code §29.003) of disabled full-paid or volunteer firefighters, full-paid municipal, county, state peace officers, custodians of the | <p>Tuition</p> |

Department of Criminal Justice, or game wardens

- Disability/death occurred in the line of duty

Required fees not to exceed 120 undergraduate credit hours or any semester begun after age 26.

**Disabled Peace Officers (permissive), *Texas Education Code §54.2041*

- Texas resident who has resided in Texas for 12 months immediately preceding registration
- Permanently disabled as a result of injury sustained in performance of duties as Texas peace officer
- Unable to continue duties as peace officer

Tuition
Fees excluding class and laboratory fees

NOT TO EXCEED 12 SEMESTERS IN UNDERGRADUATE PROGRAM

Blind and deaf students, *Texas Education Code §54.205*

- A blind disabled person, or a person whose sense of hearing is nonfunctional

Tuition

| | | |
|---|---|---|
| | <ul style="list-style-type: none"> ▪ Texas resident | <p>Required fees</p> <p>General property deposit</p> |
| **Good Neighbor Scholarship (permissive), Texas Education Code §54.207 | <ul style="list-style-type: none"> ▪ A limited number (as prescribed by the Coordinating Board) of native-born citizens and residents from nations of the Western Hemisphere other than the United States | Tuition |
| Firefighters enrolled in fire science courses, Texas Education Code §54.208 | <ul style="list-style-type: none"> ▪ Firefighters enrolled in course offered as a part of fire science curriculum | Tuition Laboratory fees |
| Children of prisoners of war or persons missing in action, Texas Education Code §54.209 | <ul style="list-style-type: none"> ▪ Dependent person ▪ Under 25 years of age who receives majority of support from parent ▪ Parent is a resident of Texas on active duty military and classified by Department of Defense as a Prisoner of War or Missing in Action at time of the student's registration | Tuition Required Fees |
| **Senior citizen (permissive), Texas Education Code §54.210 | <ul style="list-style-type: none"> ▪ Individuals 65 years of age or older on space available basis | Tuition NOT TO EXCEED 6 CREDIT HOURS PER SEMESTER |
| | <ul style="list-style-type: none"> ▪ Individuals 65 years of age or older on space available basis may audit | Tuition |
| Foster Children, Texas Education Code §54.211 | <ul style="list-style-type: none"> ▪ For individuals who were in foster care or other residential care under the conservatorship of the Department of Protective and Regulatory Services on or after the day preceding the individual's 18th birthday, the day of the student's 14th birthday if the student was eligible for adoption on or after that day, or the day the student received a high school diploma or equivalent ▪ Enrolls not later than the 3rd anniversary of date of discharge from that care or the 21st birthday | Tuition Required fees |
| Adopted Children formerly in Foster or other Residential Care, Texas Education Code § 54.2111 | <ul style="list-style-type: none"> ▪ For individuals who were adopted; and ▪ Were subject of an adoption assistance agreement under Subchapter D, Chapter 162, Family Code, that provided monthly payments and medical assistance benefits and was not limited to providing only for the reimbursement of nonrecurring expenses | Tuition and Fees |
| TANF Students, Texas Education Code §54.212 | <ul style="list-style-type: none"> ▪ For students who during the student's last year of public high school in this state, was a dependent child receiving financial assistance under Chapter 31, Human Resources Code, for not less than six months ▪ Successfully completed the attendance requirements under Section 25.085 ▪ Younger than 22 years of age on the date of enrollment ▪ Enrolls at the institution as an undergraduate student not later than the second anniversary of the date of graduation from a public high school in this state ▪ Has met the entrance examination requirements of the institution before the date of enrollment ▪ Texas resident | Tuition Fees NOT TO EXCEED FIRST ACADEMIC YEAR |
| Educational Aides, Texas Education Code §54.214 | <ul style="list-style-type: none"> ▪ School employee who worked as an educational aide for at least one year during the 5 years preceding the semester of the exemption ▪ Establish financial need ▪ Pursuing teacher certification ▪ Maintain acceptable GPA ▪ Texas Resident | Tuition Fees excluding class and laboratory fees |
| ** Concurrent enrollment-high school/university credit (permissive). Texas Education Code §54.216 | <ul style="list-style-type: none"> ▪ Individuals enrolled in a course that provides simultaneously course credit towards (1) high school academic requirements; and (2) a degree offered by the institution. | All or part of tuition and fees |
| **Fully Funded Courses (permissive), Texas Education Code §54.217 | <ul style="list-style-type: none"> ▪ Individuals enrolled in courses that are fully funded by federal or other sources | Tuition and fees for particular course |
| Distance/Off-Campus Learning (permissive), Texas Education Code §54.218 | <ul style="list-style-type: none"> ▪ Student enrolled only in distance learning courses or other off-campus courses | Fees for activities, services or facilities that the student cannot reasonably be expected to use |
| Prisoners of War, Texas Education Code §54.219 | <ul style="list-style-type: none"> ▪ Is a resident of Texas and was a resident of Texas at the time of original entry into the armed forces ▪ Was first classified as a POW on or after January 1, 1999 ▪ Is enrolled for at least 12 semester credit hours | Tuition and Required Fees Student Housing and Food Contract Cost Textbook costs |

| | | NOT TO EXCEED 120 HOURS |
|---|---|--|
| Children of Professional Nursing Program Faculty, <i>Texas Education Code §54.221</i> | <ul style="list-style-type: none"> ■ For children whose parent is a faculty member or teaching assistant in a nursing program in Texas ■ Age is 25 year or younger ■ Texas resident ■ Has not previously received a baccalaureate degree ■ Has not previously received an exemption under this section for 10 semesters or summer sessions ■ Exemption applies only at institution that employs the parent/faculty member | Tuition (Prorated if parent is not full-time) |
| Nursing Preceptors and their Children, <i>Texas Education Code §54.222</i> | <ul style="list-style-type: none"> ■ Texas resident ■ Registered nurse ■ Serving under contract as a clinical preceptor OR ■ A child 25 years or younger whose parent meets the criteria above, has not previously received a baccalaureate degree and has not previously received an exemption under this section for 10 semesters or summer sessions | \$500 off tuition per semester |
| Economic Hardship, <i>Texas Education Code §54.503(e)</i> | <ul style="list-style-type: none"> ■ When payment of fee causes undue economic hardship -- number of exceptions limited to 5 percent of total enrollment | General fee |

| | | |
|--|---|--|
| Early High School Graduates, <i>Texas Education Code §56.201-209</i> | <ul style="list-style-type: none"> ■ Graduated from high school in not more than 41 consecutive months and successfully completed the recommended or advanced high school program under Section 28.025; if the person graduated on or after 9/01/2005; - in not more than 46 consecutive months, with at least 30 college credit hours, and successfully completed the recommended or advanced high school program under Section 28.025, if the person graduated on or after 9/01/2005; or - in not more than 36 consecutive months after successfully completing the requirements for a high school diploma, if the person graduated before 9/01/2005. ■ Attended for the majority of time a Texas public high school ■ Be a US citizen or otherwise lawfully authorized to be present in the US. | <ul style="list-style-type: none"> ■ If completed the recommended or advanced high school program: - \$2000 for tuition and mandatory fees if graduated from high school on or after 9/01/05 in 36 consecutive months or less (an additional \$1,000 if graduated with at least 15 college credit hours) - \$500 for tuition and mandatory fees if graduated from high school in 37-41 consecutive months on or after 9/01/05 (an additional \$1,000 if graduated with a least 30 college credit hours) - \$1,000 for tuition and mandatory fees if graduated from high school in 42-45 consecutive months on or after 9/01/05 with at least 30 college credit hours ■ If completed the requirements for a high school diploma: - \$1,000 for tuition only if graduate before 9/01/05, |
|--|---|--|

| | | |
|--|---|---|
| | | and if graduated from high school in not more than 36 consecutive months. |
| Surviving Spouse and minor children of certain police, security or emergency personnel killed in the line of public duty. <u>Texas Government. Code, §615.0225</u> | <ul style="list-style-type: none"> ■ For the surviving spouse or children of certain public peace officers, probation officers, parole officers, jailers, police reservists, fire fighters, and emergency medical personnel. <u>Texas Gov't. Code, §615.003</u> ■ Death occurred in the line of duty as a result of a risk inherent in the duty. ■ Must be enrolled full time. | Tuition and Fees Student Housing & Food Contract costs Textbook costs NOT TO EXCEED BACHELOR'S DEGREE OR 200 HOURS |

* This information is provided in summary form. For more information, students should contact the Admissions Office and/or refer to *Texas Education Code Section 54.201, et seq.*

** Must have Regental approval.

*** Required fees are those required as a condition of enrollment. They do not include room, board, books, transportation, lab fees, or other course specific fees or optional fees.
Last updated April 1, 2008.

GENERAL DEBTS OF STUDENTS OR ORGANIZATIONS

The University is not responsible for any debts contracted by individual students or by student organizations. The University will not assume the role of collection agency for any organization, firm, or individual to which students may owe money, nor will the University adjudicate disputes between students and creditors over the existence or amounts of debts.

DEBTS OWED TO THE UNIVERSITY

In the event of non-payment of debts owed to the University, one or more of the following actions may be taken by the University:

- Bar against registration
- Withhold the student's grades and official transcripts
- Withhold a degree to which the student might otherwise be entitled
- Delinquent accounts will be referred to a Collection Agency and Credit Bureau
- Other penalties and actions authorized by law

RETURNED CHECKS

A student who pays the University a check, draft, or money order for services or goods that is not subsequently honored by payor's bank and the fault is not that of the bank, and who does not pay the University the amount due within ten class days after the receipt of written notice that the bank has refused payment, may be subject to disciplinary action. A student who pays tuition and fees with a check, draft, or money order that is not subsequently honored by payor's bank, the fault not being that of the bank, may be withdrawn from the University for non-payment of tuition and fees if the student fails to pay the University the amount due plus a \$30.00 returned check fee within ten class days after receiving written

notice, student's check will be referred to the County Attorney for collection. Additional collection fees will be assessed by the County Attorney's Office. All check writers whose check is returned will be assessed a \$30 fee for each check not honored by payor's bank. This assessment is subject to change without prior notice.



On-Campus Housing Expenses

Department of Residence Life
Mner Village
2401 North Oregon Street
El Paso, TX 79902
(915) 747-5352
housing@utep.edu

UTEP offers some of the finest and most affordable on-campus housing facilities available. Opened in Fall of 2001, Mner Village provides a state of the art living environment designed to help students succeed academically. Located a brief 5 minute walk from the UTEP Library, most academic buildings and the Sun Bowl Stadium, Mner Village offers many opportunities for students to get involved on-campus.

Students may choose from four different styles of apartments: efficiencies for one or two students or two bedroom and four bedroom units. Each bedroom is a private room and all apartments feature high speed internet, cable television connections and have private telephone lines. They are fully furnished (Living room: couch, chair, coffee table, end table, kitchen table and chairs. Bedroom: bed, dresser, desk and desk chair).

One low monthly payment includes all utilities (electricity, refrigerated air, gas, water, sewer and trash removal), high speed internet, basic cable television and a parking permit.

| | |
|-------------------------------|-----------|
| 2 Person Efficiency (monthly) | \$ 355.00 |
| 1 Person Efficiency (monthly) | \$ 510.00 |
| 2 Bedroom (monthly) | \$ 485.00 |
| 4 Bedroom (monthly) | \$ 460.00 |

To reserve a space, students must submit a Mner Village application and a \$200 deposit. A \$30, once a year telephone maintenance fee is required upon check-in. Variable lease options are available which enable students to live at Mner Village during the academic year only or on a year round basis if they choose.

For information on current rates or to take a tour please give us a call or come by.





Residency for Tuition Purposes

The Office of Admissions and Recruitment is responsible for determining residency status of students for tuition purposes. The Office is guided by the Texas Education Code, the Rules and Regulations for Determining Residence Status of the Texas Higher Education Coordinating Board, and University regulations. Under the state statutes and regulations, a student or prospective student is classified as a resident of Texas, non-resident, or foreign student.

- A resident is an individual who is either a U.S. citizen, national, permanent resident alien, or an alien who has been permitted by Congress to adopt the U.S. as his or her domicile while in the United States and who has otherwise met the State requirements for establishing residency for tuition purposes.
- A non-resident is a citizen, national, or permanent resident of the U.S. or an alien who has been permitted by Congress to adopt the U.S. as his or her domicile while in this country and who has not met the State's requirement for establishing residency for tuition purposes.
- A foreign student is an alien who is not a permanent resident of the U.S. or has not been permitted by Congress to adopt the U.S. as his/her domicile.

While these State requirements for establishing residency are complex and should be referred to in each particular circumstance, they generally require that an independent individual (18 years of age or older) establish a domicile in Texas and reside in the State for a period of 12 months prior to the census date of the academic term in which the person is enrolled. For minors and dependents, the parents or court-appointed legal guardian must have established a domicile and meet the residency requirements. The minor or dependent must be eligible to be claimed by the parent or court-appointed legal guardian on their federal income tax.

An individual may also be classified as a Texas resident if the individual (1) graduated from a public or private high school or received the equivalent of a high school diploma in Texas; and (2) resided in Texas for at least three years as of the date the person graduated from high school or received the equivalent of a high school diploma; and (3) continuously resided in Texas for one year prior to the census date of the academic term in which the person is enrolled. An individual is classified as a Texas resident until the individual establishes a residence outside of the state of Texas.

The following visa holders are eligible to establish a domicile in the United States and have the same privilege of qualifying for Texas residency as U.S. citizens: A-1, A-2, A-3, E-1, E-2, G-1, G-2, G-3, G-4, G-5, H-1B, H-4, dependents of H-1B, I, K-1, K-2, K-3, K-4, L1a, L1b, L-2, NATO 1-7, O-1, O-2, O-3; dependents of O-1, R-1, R-2, V, OP-1, I-551, or I-688/AB visas that have not expired. In order for these cardholders to be eligible for resident tuition, residency must be established.

An individual who is classified as a non-resident or foreign student may qualify, under certain exceptions, for resident tuition rates and other charges while continuing to be classified as a non-resident or a foreign student.

Military

Certain military personnel, spouse and dependent children, are eligible to pay resident tuition rates as provided through Texas Education Code Section 54.058 (b)-(c). These provisions provide for nonresident members of the U.S. Armed Forces, members of Texas units of the Army or Air National Guard, or Commissioned Officers of the Public Health Service who are assigned to duty in Texas to pay the resident tuition rate for themselves, their spouses and dependent children. To qualify, the student must submit once a year a statement from an authorized officer in the services, certifying that he or she (or a parent or court-appointed legal guardian) will be assigned to duty in Texas at the time of enrollment and is not a member of the National Guard or Reserves who will be in Texas only to attend training with Texas units.

In addition, Texas Education Code Section 54.058 (d) also provides resident tuition rates for a spouse or dependent child of a member of the Armed Forces of the United States, who is not assigned to duty in Texas but who has previously resided in Texas for a 6 month period if the member has provided at least one year preceding the first day of the term or semester a document with the applicable military service that is in effect on the first day of the semester. The document must indicate the member's permanent residence address in Texas and designate Texas as the member's place of legal residence for the purpose of income tax purposes. In addition, the member provides documentation that he or she has been registered to vote in Texas for the entire year preceding the first day of the semester and satisfies at least one of the following requirements: 1) has owned real property in Texas for the entire year preceding the first day of the semester and 2) has had an automobile registered in Texas for the entire year preceding the first day of the semester or at least one year preceding the first day of the semester executed a will that has not been revoked or superseded indicating that the member is a resident of Texas and deposited the will with the county clerk of the county of the member's residence under Section 71, Texas Probate Code.

Other Exceptions

Waivers of non-resident tuition for non-residents and foreign students are available for

- Participants in the Academic Common Market
- Residents of the eight New Mexico counties that border on Texas
- Recipients of competitive University scholarships of \$1,000 or more
- Students whose families transferred to Texas as part of the State's plan for economic development
- U.S. Foreign Service Officers assigned to posts in Mexico
- Mexican citizens with demonstrated financial need
- Military stationed in Texas and their dependents
- NATO forces stationed in Texas and their dependents
- Teaching and research assistants and their dependents
- Higher education teachers and professors and their dependents
- Registered nurses enrolled in postgraduate nursing degree programs

STUDENT RESPONSIBILITIES

Reclassification as a Non-Resident

Persons who have been classified as residents of Texas will be reclassified as non-resident students whenever they report, or there is found to exist, circumstances indicating a change in legal residence to another state. If students who have been classified as residents of Texas are found to have been erroneously classified as a result of an omission or falsification will be reclassified as non-residents and will be required to pay the difference between resident and non-resident fees for the semesters for which they were erroneously classified.

Reclassification as a Resident

Persons classified as non-residents upon first enrollment may request reclassification. In order to have residence status reconsidered, students must complete the Core Residency Questions and submit it with the appropriate documentation regarding residency to the Office of Admissions and Recruitment prior to the first day of class of the semester.

for which the change is sought. After the form and documentation are reviewed, students are notified in writing of the residence decision.

If students have been erroneously classified as non-residents and subsequently prove to the satisfaction of the University's residency official that they should have been classified as resident students, they will be reclassified as residents of Texas and will be entitled to a refund of the difference between the resident and non-resident fees for the semesters in which they were erroneously classified.

All students are expected to pay the tuition assessed on or before the payment date for each semester as established by the University. All residence questionnaires and forms verifying non-resident tuition exemption status must be submitted prior to the first day of class of the term for which the change is sought. To prevent any delay in enrollment, students are encouraged to submit all forms at least two weeks before registration. Students should consult the *Class Schedule* for specific information concerning the submission of non-resident exemption forms.

Non-Compliance with Institutional Rules and Regulations

If students have obtained residency classification by virtue of deliberate concealment of facts or misrepresentation of facts, they may be required to repay the difference in tuition rates and may be subject to appropriate disciplinary action, in accordance with the rules and regulations of The University of Texas at El Paso. For questions on residency or to update residency status, please contact the Office of Admissions and Recruitment at (915) 747-5890.



THE GRADUATE SCHOOL

Graduate School Administration

- [Graduate Council](#)

Graduate Programs

- [Doctoral Programs](#)
- [Master's Programs](#)
- [Combined Programs](#)
- [On-Line Programs](#)
- [Certificates and Non-Degree Programs](#)
- [Cooperative Programs](#)

General Degree Requirements

- [Preliminary Degree Plans](#)
- [Time Limits and Catalog Changes](#)
- [Course Work Requirements](#)
- [Thesis Requirements](#)
- [Dissertation Requirements](#)
- [Final Examination](#)
- [Graduation Requirements](#)







Graduate School Administration

Since the awarding of the first master's degree in History in 1942, the graduate program at UTEP has experienced significant growth. In 1967, a Graduate School was organized, and in 1974, the first doctoral-level degree program, the Doctor of Philosophy in Geological Sciences, was approved by the Coordinating Board of the Texas College and University System, with the first degree awarded in 1979. Today, the Graduate School offers Doctor of Philosophy degrees in Biological Sciences, Chemistry, Civil Engineering, Electrical and Computer Engineering, Computer Science, Environmental Science and Engineering, Geological Sciences, History/Borderlands History, Interdisciplinary Health Sciences, International Business, Materials Science and Engineering, Psychology, Rhetoric and Composition and the Doctor of Education in Educational Leadership and Administration, and master's degrees in over 70 areas.

The Graduate School is comprised of professors and scholars designated as Members of the Graduate Faculty and of students duly admitted to pursue their studies beyond the baccalaureate degree. The Graduate School faculty and administration award all graduate degrees conferred by the University under authority delegated by the Board of Regents of The University of Texas System.

PABLO ARENAZ, *Vice Provost for Graduate Studies and Dean of the Graduate School*

B.S., M.S., University of Nevada, Reno; Ph.D., Washington State University

YVONNE LOPEZ, *Assistant Dean for Graduate Student Services*

B.A., The University of Texas at Pan-American; M.Ed., The University of Texas at El Paso

THE GRADUATE COUNCIL

The Graduate Faculty of The University of Texas at El Paso exercises its legislative functions through a Graduate Assembly. The Graduate Assembly is the final faculty authority for recommending policies concerned with academic standards for admission and retention of students, for furthering the development of the graduate program, and other matters affecting graduate study. The Assembly accomplishes most of its responsibilities through its elected representatives to the Graduate Council. Terms expire on August 31 of the year indicated in parentheses.

PABLO ARENAZ

Vice Provost for Graduate Studies and Dean of the Graduate School
Ex-Officio Member

MEREDITH ABARCA (2008)

Assistant Professor of English

College of Liberal Arts
Member-At-Large

MARIA ALVAREZ-AMAYA (2009)

Professor of Nursing, School of Nursing
Member-At-Large

MARION L. ELLZEY (Voting)

Professor of Chemistry
College of Science
President of the Faculty Senate

HELEN FOSTER (2010)

Associate Professor of English
College of Liberal Arts
Member-At-Large

JORGE GARDEA-TORRESDAY (2008)

Professor of Chemistry
College of Science Representative

ELENA IZQUIERDO (2010)

Associate Professor of Teacher Education
College of Education Representative

GEORGE A. KING (2010)

Associate Professor of Kinesiology
College of Health Sciences Representative

OSCAR MACCHIONI (2009)

Assistant Professor of Music
College of Liberal Arts Representative

CHERYL MARTIN (2010)

Professor of History
College of Liberal Arts Representative

THOMAS OLSON (2008)

Professor of the School of Nursing
School of Nursing Representative

ARUNKUMAR PENNATHUR (2008)

Associate Professor of Industrial Engineering
College of Engineering Representative

RICHARD POSTHUMA (2008)

Associate Professor of Marketing and Management
College of Business Administration Representative

THOMPSON SARKODIE-GYAN (2009)

Associate Professor of Electrical and Computer Engineering
College of Engineering Representative

MILAGROS SEDA (2009)

Associate Professor of Teacher Education
College of Education Representative

RICHARD SPRINKLE (2010)

Professor of Economics and Finance
College of Business Administration Representative

JOHN WALTON (2008)

Professor of Civil Engineering

College of Engineering
Chair of the Graduate Council

JOHN WIEBE (2008)

Associate Professor of Psychology
College of Liberal Arts
Member-at-Large

PIOTR WOJCIECHOWSKI (2009)

Associate Professor of Mathematical Sciences
College of Science Representative



Graduate Programs

DOCTORAL PROGRAMS

Doctor of Education (EdD)

Educational Leadership and Administration

Doctor of Philosophy (PhD)

Biological Sciences

Chemistry

Civil Engineering

Computer Science

Electrical and Computer Engineering

Environmental Science and Engineering

Geological Sciences

History

Interdisciplinary Health Sciences

International Business

Materials Science and Engineering

Psychology

Rhetoric and Composition

MASTER'S PROGRAMS

Master of Accountancy (MACY)

Master of Arts (MA)

Art

Art Education

Studio Art

Communication

Education

English

English and American Literature

Rhetoric and Writing Studies

History

History

US/Mexico Border

Latin American and Border Studies

Leadership Studies

Linguistics

Political Science

Psychology

Clinical

General Experimental

Sociology

Spanish
Theatre Arts

Master of Arts in Interdisciplinary Studies (MAIS)

Master of Arts in Teaching (MAT)

English
Mathematics

Master of Business Administration (MBA)

Business Administration

Master of Education (MED)

Educational Administration
Educational Diagnostician
Educational Psychology and Guidance
Guidance and Counseling
Instructional Specialist
Reading Education
Special Education

Master of Engineering in Environmental Engineering (MEENE)

Master of Fine Arts (MFA)

Creative Writing

Master of Information Technology (MIT)

Master of Music (MM)

Music Education
Performance

Master of Occupational Therapy (MOT)

Master in Physical Therapy (MPT)

Master in Public Administration (MPA)

Master of Science (MS)

Bioinformatics
Biological Sciences
Chemistry

Civil Engineering
Computer Engineering
Computer Science
Economics
Electrical Engineering
Engineering
Environmental Science
Geological Sciences
Geophysics
Health Promotion
Industrial Engineering
Kinesiology

Manufacturing Engineering
 Computer Aided Manufacturing
 Design Controls
 Planning
Mathematics
Mechanical Engineering
Metallurgical and Materials Engineering
Physics
Speech-Language Pathology
Statistics

Master of Science in Environmental Engineering (MSENE)

Master of Science in Interdisciplinary Studies (MSIS)

Master of Science in Nursing (MSN)

Family Nurse Practitioner
Nursing Systems Management
Nurse Clinician Educator
Women's Health Care-Nurse Practitioner

Additional doctoral and master's degree programs are pending final approval. For information, students should contact the graduate advisor for a specific academic area or the Graduate School, (915) 747-5491.

COMBINED PROGRAMS

BBAMAcc Bachelor of Business Administration (Acct.)/Master of Accountancy

BBAMBA Bachelor of Business Administration (Acct.)/Master of Business Administration (Acct.)

MBAMPA Master of Business Administration/Master of Public Administration

ON-LINE PROGRAMS

Master of Business Administration

Master of Science in Kinesiology/UT Telecampus

CERTIFICATES AND NON-DEGREE PROGRAMS

College of Business Administration

International Business Certificate
MBA Plus Program

College of Engineering

International Manufacturing

College of Education

Texas Initial Teaching Certificate
Alternative Certification

Endorsement Program

Mid Management Professional Certification

College of Health Sciences

Bilingual Speech Language Pathology Certificate

School of Nursing

Evidence-Based Practice PB Certificate
Health Care Leadership and Management PB Certificate
Nurse Educator Graduate Certificate
Post-Master's Family Nurse Practitioner

College of Liberal Arts

Latin American and Border Studies
Teaching English to Speakers of Other Languages
Women's and Gender Studies

Institute for Policy and Economic Development

Border Administration
Economic Development
Leadership Studies
Urban and Regional Planning

Graduate Certificate in Intelligence and National Security (see under Interdisciplinary Programs)

Non-Degree Option

Students selecting the non-degree option are placed in an unclassified status, indicating no particular major or program of study has been selected. Course work is usually for personal, professional, or educational enrichment only. Students often select the non-degree option to complete prerequisite undergraduate work or to demonstrate their ability to do graduate level coursework. Students may enroll in graduate-level course work only with the permission of the graduate advisor for the department in which the courses belong. Should a non-degree student subsequently be admitted into a degree program, the departmental graduate advisor may recommend to the Graduate School that up to nine (9) hours completed prior to formal admission to the program be used toward the graduate degree.

Admission as a non-degree student does not constitute admission into a graduate degree program of the Graduate School. Non-degree admission is not available to international students who need a visa (I-20) to attend school in the United States unless approved by the Office of International Programs. Non-degree students are ineligible to receive any type of federal or institutional financial aid, including VA benefits.

All non-degree students are required to maintain a minimum cumulative grade point average of 2.5. If the cumulative GPA drops below 2.5 the non-degree student will be placed on academic probation and must return the CGPA to 2.5 within one semester. Failure to do so will result in dismissal.

COOPERATIVE PROGRAMS

UTEP enthusiastically participates in cooperative degree programs with the University of Texas at Austin and the UT Health Sciences Center in Houston. Applicants to such programs are required to submit separate applications to the degree-granting institution and are classified as post-baccalaureate students for any UTEP enrollment. Students are asked to be aware that admission to UTEP as a post-baccalaureate student neither offers nor implies admission to the degree-granting institution.

Doctor of Pharmacy/UT Austin

The University of Texas at Austin (UT Austin) in cooperation with the University of Texas at El Paso grants the degree of Doctor of Pharmacy. The first two years of the prepharmacy curriculum is available on the UTEP campus. Students then apply for admission to the College of Pharmacy at UT Austin. At least the first two years, of the approximate four years, of course work in pharmacy school must be taken on the UT Austin campus. It is anticipated that about 1.5-2.0 of the final years of the professional curriculum should be available at UTEP.

Ph.D. in Nursing (Formerly Doctor of Science in Nursing) UT Health Science Center, Houston

Students can contact the School of Nursing for information about this cooperative program.

Master of Public Health/ UT Health Science Center, Houston

The University of Texas Health Science Center at Houston offers the Master of Public Health degree (MPH) at UTEP. This program was developed to provide students

with a basic foundation in public health and an understanding of the unique health problems of the US-Mexico border through course work and applied research. Courses are provided by the University of Texas - Houston School of Public Health faculty in residence at the El Paso campus, as well as through interactive television courses taught by faculty at both the Houston and San Antonio campuses. In addition, some upper-division and graduate courses offered by UTEP academic departments may be taken concurrently and be considered in fulfillment of degree requirements. The program is fully accredited by the Council on Education for Public Health.

This El Paso satellite program provides students with the opportunity to study and conduct research in a binational and multicultural region. Students are expected to gain a competency in the five basic disciplines of public health (administration, behavioral sciences, biometry, environmental health, and epidemiology) with a focus on border health. Degree requirements include the completion of a minimum of 36 credit hours, including a master's thesis in which students examine a specific health issue in depth. The University of Texas - Houston Health Science Center School of Public Health is the degree-granting institution. For additional information, students can call (915) 747-8500.



General Degree Requirements

PRELIMINARY DEGREE PLAN

During the first semester of graduate study, each master's student must submit to the Graduate School a graduate advisor approved **Preliminary Degree Plan**. The Preliminary Degree Plan should list the courses required by the department that the student must complete prior to graduation. The selection of a supervising thesis committee, composed of at least two departmental representatives and one member from outside the department (all members of the Graduate Faculty), may be delayed to the second semester of graduate study. The degree plan must be approved by the Graduate School.

For doctoral students, the Preliminary Degree Plan must be submitted during the first year of graduate study. For composition of the supervising committee, the student should refer to the section in this catalog that describes his/her respective doctoral program.

Nine semester hours of upper-division undergraduate courses approved for graduate credit are the maximum allowable in any individual's program. Undergraduate courses taken for graduate credit require additional work, the amount and nature of which to be determined by the instructor. Undergraduate courses approved for graduate credit are listed in the Graduate Catalog under their respective program. The Graduate School discourages students from working toward more than one graduate degree at the same time.

TIME LIMITS AND CATALOG CHANGES

All requirements for a master's degree must be completed within one six-year period, including any transfer work or work completed prior to admission to the program. Work over six years old is lost and can be reinstated only by special permission of the Dean of the Graduate School upon the recommendation of the committee on graduate studies. Doctoral students should consult the specific program for the policy on time limits for completing doctoral degree requirements.

COURSE WORK REQUIREMENTS

Course Load

Registration in excess of 15 semester hours during a long semester, or 6 semester hours in a summer term requires the approval of the departmental graduate advisor and the Graduate School.

At least 30 semester hours of upper-division and/or graduate instruction are required for any master's degree. Nine semester hours of upper-division undergraduate courses approved for graduate credit are the maximum allowable in any individual's program. Undergraduate courses taken for graduate credit will require additional work, the amount and nature of which to be determined by the instructor. Every proposed program of work needs the approval of the Graduate School. The Graduate School discourages students from working toward more than one graduate degree at the same time.

Fall and Spring

| | | |
|-----------|---|------------------------------|
| Full-time | = | 9 or more hours per semester |
| Part-time | = | 8 or less hours |

Maximum course load is 15 semester hours.

Maymester and Wintermester

| | | |
|-----------|---|--------------------------|
| Full-time | = | 3 or more hours per term |
| Part-time | = | 2 or less hours |

Maximum course load is 6 hours.

Summer and 10 weeks

| | | |
|-----------|---|--------------------------|
| Full-time | = | 3 hours or more per term |
| Part-time | = | 2 or less hours |

Maximum course load is 6 hours.

Thesis and dissertation students refer to the Enrollment Verification Guide.

Enrollment Verification Guide

For enrollment verification to financial aid, loan agencies, insurance companies, scholarships, etc., the following categories will be followed. Students are encouraged to enroll in the appropriate number of credit hours as required by the agencies, etc. Veterans Affairs (VA) students are recommended to consult with the campus VA Office.

Students who participate in the **Career and Professional Development Services Cooperative Education Program** and who are only enrolled in a CO-OP course will be classified as full-time for the semester/term.

The classification of full-time status applies to criteria for employment as teaching and research assistants and for receipt of stipends and scholarships. It represents a minimum standard and individual programs may require students to enroll in more hours to qualify for support.

Fall and Spring

| | | |
|-----------|---|------------------------------|
| Full-time | = | 9 or more hours per semester |
|-----------|---|------------------------------|

Part-time = 8 or less hours

| | | |
|-------------|---|--------------------|
| ¾ time | = | 6-8 hours |
| ½ time | = | 4-5 hours |
| Less than ½ | = | fewer than 4 hours |

Maymester and Wintermester

| | | |
|-------------|---|-----------|
| Full-time | = | 3 or more |
| ½ time | = | 2 hours |
| Less than ½ | = | 1 hour |

Summer Sessions

| | | |
|-------------|---|-----------|
| Full-time | = | 3 or more |
| ½ time | = | 2 hours |
| Less than ½ | = | 1 hour |

Master's degree students who have completed all requirements for the degree except the second semester of the master's thesis (5399) and who were full-time students in the immediately preceding fall or spring semester are classified by the Graduate School as full time if enrolled in 3 hours of thesis. This applies to **two** final semesters only.

Doctoral degree students who have completed all requirements for the degree except the dissertation (6398/6399 or 6320/6321) and who were full-time students in the immediately preceding fall or spring semester are classified by the Graduate School as full time if enrolled in 3 hours of dissertation. This applies to **three** final semesters of dissertation work only.

Graduate students enrolled in 3 hours during one of the summer semesters are classified by the Graduate School as full time for the entire summer.

This full-time classification is a criteria for employment as teaching and research assistants and for receipt of stipends and scholarships. It represents a minimum standard and individual programs may require students to enroll in more hours to qualify for support.

Students participating in the Career and Professional Development Services Cooperative Education Program and are only enrolled in a CO-OP course will be classified as full-time.

Graduate students receiving financial aid must register for a minimum of four hours every semester to retain their financial aid eligibility even if they are in their last semester of thesis, dissertation or coursework.

Prerequisites

Every master's degree program is based on the assumption that the student participating in it already possesses a general college education through the baccalaureate level. Accordingly, the first prerequisite for the entering student is a baccalaureate degree from an accredited institution (or, for international and special students, proof of equivalent training). A second prerequisite is that the entering student must have taken at least 12 semester hours of advanced undergraduate courses in the area of study in which he or she proposes to pursue a graduate major. Some areas may require more semester hours of undergraduate preparation. Students must earn at least a 3.0 grade point average in any deficiency or leveling work required. If a student without adequate preparation is admitted to a given graduate program, admission will be conditional until such time as the student has completed the courses of preparatory work designated by the graduate advisor. These courses will be in addition to the 30 hours (or more) required for the master's degree itself.

THESIS REQUIREMENTS

The candidate must be accepted into a graduate program prior to pursuing the thesis. The candidate for the master's degree writes a thesis under the direction of a supervising committee, consisting of at least two departmental representatives and one member from outside the department. The thesis is subject to the approval of the committee and ultimately to the approval of the Dean of the Graduate School. The researching and writing of the thesis involves 6 semester hours of credit. In order to earn the 6 credit hours for the thesis, the student must register for course 5398 when work on the thesis is begun. Thereafter, the student must register for 5399 *during each semester or term in which work on the thesis is being done*. Students may not enroll in 5398 and 5399 simultaneously, nor may they enroll in more than three hours of thesis at any one time, and must be enrolled during the semester of graduation.

A copy of the thesis in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled Defense date. The thesis must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate school once the format has been approved.

The candidate must submit a copy of the final Graduate school approved thesis in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule of the intended semester of graduation. A hard copy of the signature page and defense form with original signatures of the members of the thesis committee must also be submitted to the Graduate School. The signature page must be included in the PDF file but should not be signed. Finally, the Graduate School approved thesis must be submitted at the University Microfilms International website for the on-line publication (<http://dissertations.umi.com/utep>). Theses are regarded as publications and will be made public once they are approved and submitted.

If a student has not completed thesis work at the end of two years after the subject has been approved and recorded, the supervisor may require the choice of another subject. Credit in the thesis course will not be granted until the thesis is completed and approved.

Non-Thesis

Some programs require internship reports, professional reports or formal papers prepared in certain graduate seminar or conference-type courses in lieu of a thesis. Non-theses should be comparable to a thesis in every respect except for the evidence of original research and are normally completed just as theses are; they must be reviewed and accepted by the supervising committee and if required submitted to the academic graduate department rather than to the Graduate School. The Graduate School does not require the submission of non-theses but requires the submission of a Completion/Defense form for all non-theses. Students are responsible for adhering to the policies and procedures of their departments.

DISSERTATION REQUIREMENTS

A doctoral candidate must be accepted into a graduate program prior to pursuing the dissertation. The candidate for the doctoral degree writes a dissertation under the direction

of a supervising committee. For composition of the supervising committee, the student should refer to the section in this catalog that describes their respective doctoral program. The dissertation is subject to the approval of the committee and ultimately to the approval of the Dean of the Graduate School. The student must register for dissertation course 6320 or 6398 when work on the dissertation is begun. Thereafter, the student must register for course 6321 or 6399 during each semester or term in which work on the dissertation is being done. Students may not enroll in 6320 and 6321, or in 6398 and 6399 simultaneously nor may they enroll in more than three hours of dissertation at any one time, and must be enrolled during the semester of graduation.

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School once the format has been approved. The defense date must be scheduled on or before Dead Day of the intended term of graduation if the doctoral candidate plans to participate in commencement activities. Summer candidates wishing to participate in spring commencement must defend by Dead Day of the spring semester. The Defense form with original signatures must be submitted to the Graduate School after the scheduled defense date or by Dead Day if the doctoral candidate is participating in commencement.

The candidate must submit a copy of the final Graduate School approved dissertation in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule of the intended semester of graduation. A hard copy of the signature page with original signatures of the members of the dissertation committee must also be submitted to the Graduate School. The signature page must be included in the PDF file but it should not be signed. The Graduate School approved dissertation must also be submitted at the University Microfilms International website for on-line publication (<http://dissertations.umi.com/utep>). Dissertations are regarded as publications and will be made public once they are approved and submitted.

FINAL EXAMINATION

All graduate degree candidates are required to satisfactorily complete an oral or written examination or both. The examining committee, consisting of at least three graduate faculty members, will normally be the student's supervising committee. The committee will have one representative from the minor area, if the program has one. If there is no minor, one member of the committee must be from another department. Individual departments may elect to drop a student after a first or second failure of the examination upon the recommendation of the examining committee, but under no circumstances will a student be permitted to take the examination more than three times. A student failing such an examination for the third time will be dropped from the program.

GRADUATION REQUIREMENTS

Degrees are conferred at the end of each semester and at the end of the summer session. For summer graduates, regardless of the summer session of enrollment, the degree is conferred at the end of the last summer session. Formal commencement ceremonies are held in May for all candidates who complete degree requirements during the spring semester and in December for fall candidates and graduates of the previous summer.

Summer candidates may participate in the May commencement ceremony if no more than 6 hours are needed to complete the degree during the summer session. Summer candidates participating in May commencement must complete the application process by the published deadline for May graduation. Summer candidates' names will not appear in the May program only in the December program.

Graduation requirements are as follows:

1. Completion of all required course work as listed on the approved Degree Plan;
2. Acceptance of thesis or dissertation by the Graduate School;
3. Satisfactory completion of an oral or written exam or both; and
4. Filing of a departmental graduate advisor approved Application for Graduate Degree with the Graduate School.
5. Payment of all applicable fees

Degree Application Procedures

Graduate degree candidates must submit an Application for Graduate Degree in the semester in which they expect to graduate and by the deadline stated in the *Class Schedule*. This form must be completed by the student and approved by the graduate advisor. The student must bring the advisor-approved form to the Graduate School two to three weeks before the published deadline to allow a complete review of the academic record. The application/diploma fee and if applicable, the thesis/dissertation on-line publishing fee is billed to the student's Goldmine account upon approval of the Application for Graduate Degree.

The Application for Graduate Degree is only valid for one semester. If the student does not graduate on the date specified in the application the student must resubmit an Application for Graduate Degree. Graduation fees are non-refundable.

Posthumous Degree

A posthumous degree may be awarded only if the student was enrolled in courses that would have allowed the student to complete all work for the degree, and if the student had the appropriate grade point average (GPA) in the required areas. For further details, students should contact the Graduate School at (915) 747-5491.



FINANCIAL INFORMATION

Admission

- General Admission Requirements
- Post-Baccalaureate Admission
- Acceptance into a Graduate Program
- Re-Admission into Graduate School

Registration and Records

- Registration
- Late Registration
- Audit Registration
- Dropping Courses
- Withdrawal from University

Curriculum and Classroom Policies

- Course Information
- Grades and Grade Point Averages

Student Educational Records

- Family Educational Rights and Privacy Act (FERPA)
- Disclosure of Educational Records





Admission

Qualified graduate applicants may apply for admission to The University of Texas at El Paso as either **degree-seeking** (master's or doctoral degree) or for **post-baccalaureate study** (certification or endorsement, completing prerequisite course work for later graduate study, or taking courses for personal or educational enrichment. All applications of students who hold a baccalaureate degree, or its equivalent, must be submitted through the Graduate School except for applicants pursuing a second or subsequent undergraduate degree. Degree programs differ in the specific requirements and guidelines for admission. The Graduate School makes determinations regarding admissions on the basis of recommendations from the relevant master's or doctoral program.

GENERAL ADMISSION REQUIREMENTS

The following documents must be submitted to the Graduate School for consideration for admission into a graduate degree program:

1. Completed application for admission.
2. Application/processing fee (\$30 US citizens or Permanent residents/Mexican nationals, \$65 International applicants).
Note: Application fees are subject to change due to legislative and/or institution action and become effective when enacted.
3. An official transcript, with the baccalaureate degree posted, from the degree-granting institution and copies of transcripts for all other relevant upper-division and graduate work at accredited U.S. institutions or equivalent work and degrees at foreign institutions. The application process can begin with copies of transcripts. Individual programs may have additional requirements.

Students who will apply to receive educational benefits through the Department of Veterans Affairs should, in addition to the above requirements, submit copies of transcripts from all other colleges and universities previously attended.

4. For graduates of institutions outside of the United States where English is not the first language, a minimum score of 213 (550 paper based exam) on the Test of English as a Foreign Language (TOEFL). Particular programs may have different minimum score requirements and in some cases alternative assessments of English language competency may be considered. Applicants should note that appointment to a graduate assistantship usually requires a score of 250 (600 paper based). Official test scores must be sent directly from the testing agency to the Graduate School.
5. Evidence of satisfactory academic achievement and potential. This will usually be assessed by review of performance in upper division (junior and senior level) courses as well as any graduate-level courses completed. In addition, many programs consider results on standardized tests, including the GRE and GMAT, in making recommendations for admission. Official test scores must be sent

directly from the testing agency to the Graduate School. Specific programs may require other evidence of academic performance and promise including interviews, personal statements, and letters of recommendation. Programs that consider results on standardized tests will also consider other information regarding the applicant's background where that is available.

6. Evidence of adequate subject preparation for the proposed graduate major.

The Graduate Studies Committee of the proposed graduate major will recommend to the Graduate School acceptance, conditional acceptance, or rejection of the application after all required documents have been received and reviewed by the Graduate School. The Graduate School approves these recommendations and notifies the applicant of the final decision.

Graduate Entrance Examinations

As part of their graduate admission requirements, students may be required to take one or more standardized tests:

Graduate Record Examination General Test

The General Test of the Graduate Record Examination (GRE) is designed to test preparation and aptitude for graduate study. Many degree programs require the GRE for admission. The GRE is taken at the applicant's expense at licensed sites. The exam is not offered on campus.

Graduate Management Admission Test

The Graduate Management Admissions Test (GMAT) is an aptitude test designed to measure certain mental abilities important in the study of management at the graduate level. The GMAT is taken at the applicant's expense at licensed sites. The exam is not offered on campus.

Test of English as a Foreign Language

The TOEFL is designed to measure proficiency in understanding the English language. For graduates of institutions outside of the United States where English is not the first language, a minimum score of 213 is required (550 paper based exam) on the TOEFL. Particular programs may have higher minimum score requirements and in some cases alternative assessments of English language competency may be considered. Applicants should note that appointment to a graduate assistantship usually requires a score of 250 (600 paper based). Official test scores must be sent directly from the testing agency to the Graduate School.

Student Assessment and Testing Office

The Student Assessment and Testing Office provides a wide array of testing services for admissions, professional certification, course placement, and credit by examination purposes. Institutional administrations of the TOEFL are offered throughout the year; TOEFL tests taken at UTEP are only valid at UTEP.

Transfer of Credit

Except for shared/co-operative programs, most work done for a graduate degree must be done at the University. For a master's degree, usually 6 semester hours of graduate work may be transferred from another accredited institution. Doctoral students are advised to consult their respective doctoral program for information on transfer of credit. All course

work transferred from other accredited institutions requires both the approval of the committee on graduate studies in the student's major area and the Dean of the Graduate School. In cases where such transfer is approved, the student must still meet the residence requirements of two full semesters or the equivalent and coursework must fall within the six-year time period.

- Only graduate level courses may be transferred for credit.
- Courses used to fulfill other degree requirements may not be transferred.
- Courses for which a grade of "C" or lower was earned may not be transferred.
- Correspondence courses are not accepted for graduate credit.

All documents submitted to the University for Transfer Work purposes become part of the official files of the University and cannot be released or returned to the student or another institution.

Academic Fresh Start Program

Undergraduate Programs

An applicant for undergraduate admission who is a Texas resident may elect to enter this institution pursuant to the Academic Fresh Start statute, *Texas Education Code*, §51.931. When the applicant informs the Admissions Office in writing of the election, the institution will not consider in the admissions decision any academic course credits or grades earned by the applicant 10 or more years prior to the starting date of the semester in which the applicant seeks to enroll. An applicant who elects to apply under this statute may not receive any course credit for courses taken 10 or more years prior to enrollment under Academic Fresh Start.

Postgraduate/Professional Programs

An applicant who has earned a baccalaureate degree under the Academic Fresh Start statute, *Texas Education Code*, §51.931, and applies for admission to a postgraduate or professional program, will be evaluated on only the grade point average of the course work completed for that baccalaureate degree and the other criteria stated herein for admission to the postgraduate or professional program.

POST-BACCALAUREATE ADMISSION

An individual who has received a baccalaureate degree but who does not wish to apply for admission into a graduate degree program may apply for admission as a post-baccalaureate student. This type of admission is available to individuals who wish to obtain teacher certification or endorsement or post-master's endorsement.

Interested individuals must complete an application for admission and must submit to the Graduate School an official transcript with the baccalaureate degree posted. If several institutions were attended, copies of those transcripts are required from each institution from which relevant junior/senior level credit and any graduate level credit were earned. UTEP transcripts are not required of students who received their baccalaureate degree from UTEP.

Initial teacher certification and professional certification for classroom teachers can also be earned. Eligibility for these programs includes a minimum 2.5 cumulative grade point average from an accredited college or university, successful completion of THEA (Texas Higher Education Assessment), and development of an approved plan of study. Eligible applicants for certification and endorsement programs will be notified that they may enroll but will need to contact the Certification Office in the College of Education immediately for eligibility into one of several certification or endorsement programs. The Certification Office and the College of Education are responsible for course scheduling and may require a minimum enrollment per term for admitted students. This Office additionally will develop a plan of study for each student in keeping with the requirements set forth by the Texas Education Agency (TEA). The certification or endorsement will be earned upon successful completion of all requirements.

Graduate-level course work completed during the certification or endorsement program that has not been used to meet other degree requirements may be recommended by the departmental graduate advisor to the Graduate School to count toward an advanced degree under certain circumstances. These courses are limited to a maximum of nine (9) semester hours in which the grade of "B" or higher has been earned within the time limits and other restrictions detailed in this catalog. Additional information on certification and endorsement programs is available from the Certification Office within the College of Education and the Graduate School.

ACCEPTANCE INTO A GRADUATE PROGRAM

Acceptance

Applicants who are judged to meet the requirements for admission into a graduate degree program may be accepted into the program without conditions.

Conditional Acceptance

Conditional acceptance is offered to students who do not meet all of the specific criteria for admission but who show promise of success in graduate study. Applicants who lack sufficient foundation in the proposed area of study may be required to successfully complete designated courses before qualifying for unconditional admission. Other applicants may be required, on the recommendation of the graduate advisor, to meet particular conditions during the first semester of study. Among the factors that programs may take into account in recommending conditional admission to the Graduate School are the applicant's academic record, the socio-economic background of the applicant, the native language of the applicant, the applicant's involvement in relevant community or extracurricular activities, a personal interview, and other material that the candidate may submit that provides evidence that the candidate would make an important contribution to the program or university's objectives and mission. An applicant, who is accepted conditionally, must remove conditions within one semester.

Rejection

An applicant who fails to meet the minimum requirements for admission to a degree program will usually be denied admission into that program. An applicant meeting the requirements for admission may be denied by the Graduate Studies Committee of the proposed major if the number of qualified applicants exceeds the number of students that can be accommodated in the available facilities or that can be adequately instructed by the available faculty. A student who has been rejected may reapply at a later time, may apply to

another program, or may apply as a post-baccalaureate student.

Non-Degree

A citizen or permanent resident of the United States who is missing required documents may apply as a Non-Degree applicant with official transcripts to register for courses. The student may register for graduate courses with the permission of the department. Courses taken prior to formal admission into a graduate program cannot be counted toward a graduate degree without specific recommendation of the departmental committee and approval of the Graduate School.

RE-ADMISSION INTO GRADUATE SCHOOL

An application for readmission is required for a student who

- has not enrolled for one year or more,
- was not accepted at an earlier date and wants to pursue admission into the same or a different field based on revised criteria or more current documentation, or
- was eligible to enroll, and failed to do so.

A student already accepted into a program and interested in changing the major field of study must reapply for admission. Accepted students must be enrolled for one full semester in the program before applying for admission to a new program. Application for admission to a new program must be made by the deadline for admission to that program.

in their current program before they can reapply for admission to a new program. Application fees are reassessed. If extenuating circumstances exist, a student may request a leave of absence. Requests are made by the graduate advisor to the Graduate School for final approval.

READMISSION OF STUDENT WHO WITHDRAWS TO PERFORM ACTIVE MILITARY SERVICE

- (a) This section applies only to a student who withdraws from an institution of higher education to perform active military service as a member of the United States armed forces or the Texas National Guard. This section does not apply to a student who withdraws from an institution solely to perform one or more training exercises as a member of the Texas National Guard.
- (b) For any academic term that begins after the date a student described by Subsection (a) is released from active military service but not later than the first anniversary of that date, the institution of higher education from which the student withdrew shall readmit the student, without requiring reapplication or charging a fee

for readmission, if the student is otherwise eligible to register for classes at the institution. On readmission of the student under this subsection, the institution shall:

- (1) provide to the student any financial assistance previously provided by the institution to the student before the student's withdrawal if the student meets current eligibility requirements for the assistance, other than any requirement directly affected by the student's service, such as continuous enrollment or another similar timing requirement; and
- (2) allow the student the same academic status that the student had before the student's withdrawal, including any course credit awarded to the student by the institution.
- (c) An institution of higher education may adopt rules requiring reasonable proof from a student of the fact and duration of the student's active military service.



Registration and Records

123 Academic Services Building
Phone: (915) 747-5544
Fax: (915) 747-8764
registrar@utep.edu
www.utep.edu/register

REGISTRAR: Miguel Sifuentes

The Registration and Records Office houses several functions: 1) **Scheduling** coordinates faculty and classroom assignments; 2) the **Registration and Records Office** is responsible for the maintenance of student records and all registration transactions. Including enrollment verifications, transcript requests, graduation applications, and diplomas; and 3) the **Veterans Affairs Office** serves the needs of students who are veterans or dependents of veterans. This office is also responsible for creating and maintaining records that support certification of a student's status with the Veterans Administration. The office is located in the Academic Services Building, Room 123. The office telephone number is (915) 747-5342; the office e-mail is veterans@utep.edu.

REGISTRATION

Registration is a process every student must successfully complete each semester. Although every effort is made to advise students academically, final responsibility for registration rests with the student. Students can attend only those classes for which they are officially enrolled. A student is not enrolled in a course and will not receive a grade for it unless the proper tuition and fees are paid by the deadlines published in the *Class Schedule* or unless arrangements have been made for deferral of payment with the Student Business Services Office. After registration, class enrollments can be verified by the Registration and Records Office.

LATE REGISTRATION

Any student who, with proper permission, registers after the scheduled days for regular registration will be required to pay a special charge of \$20.00 for the late telephone/Web registration process, \$30.00 for in-person late registration, and \$50.00 on or after the first official school day of class. A new student will have the late registration fee waived as long as registration is made prior to the first official school day of class. Late registrants are subject to the same regulations and course requirements as students who enroll on time. Classes missed because of late registration will be counted as an absence, and class or laboratory work missed will be counted as a zero unless the instructor grants permission to make up the work.

Any student who has been withdrawn and has his schedule reinstated after census day will be assessed a \$200 reinstatement fee.

AUDIT REGISTRATION

Courses may be audited under the following provisions:

- Students should complete an Audit Registration form for each course to be audited after classes have begin and prior to the 'Census Day' of the long semester. This form must be signed by the instructor teaching the course and by the department chair and then taken to Student Business Services in the Academic Services Building for payment.
- No grades will be assigned, and no credit will be awarded for audited courses. The extent of class participation is at the discretion of the instructor.
- Credit by examination for audited courses will not be permitted unless tuition and all appropriate fees are paid before the exam is taken.
- The following courses cannot be audited: clinical, laboratory, studio activity, any physical activity class (such as PE or Dance), individual instruction, private lessons, or courses specified in the degree plan. It is the student's responsibility to verify that the course being audited is not within the excluded categories. Audit Registration fees will not be refunded for a class in an excluded category.
- Audit-only students must purchase a Library community user card and a parking decal to park on UTEP property. Other student benefits such as tickets to events, student health services, access to the Swimming and Fitness Center, or a student ID are not available to audit-only students. Existing student IDs will not be activated for any semester in which a student is in an audit-only status.
- Audit fees:
 - \$10.00 per course for students concurrently enrolled at UTEP.
 - \$30.00 per course for students not concurrently enrolled at UTEP.
 - No charge for students over 65 years of age.
- Students should not register for courses they plan to audit. Course registration does not guarantee a seat as an auditor. Registering for the course will result in assessment of regular tuition and fees, in addition to the audit fees noted above.

DROPPING COURSES AND COMPLETE WITHDRAWALS

Students may drop individual courses or completely withdraw from the University as described below. Refer to the on-line Academic Calendar at www.utep.edu/Calendar or to the *Class Schedule* to identify the dates during which adds, drops, withdrawals, and pass/fail registration changes may occur.

DROPPING COURSES

Student-initiated Drops

It is the student's responsibility to officially drop a course that s/he no longer wishes to take. Failure to do so may result in a grade of "F" on the student's academic record. Athletes must receive permission from the Miner Athletic Advising Center before dropping a course. International students with F or J visas must receive permission from the Office of International Programs before dropping a course.

Administrative Drops

During registration periods for upcoming semesters, students will be dropped from registered courses for failure to meet prerequisites or corequisites after final grades have been posted for the current semester and before the beginning of late registration for next semester. A student may petition the department chair of the course in question for a prerequisite or corequisite waiver.

At the discretion of the instructor, a student may be dropped from a course because of excessive absences or lack of effort. Students may also be administratively withdrawn from a course during the semester for other reasons, with the concurrence of the academic dean or department chair. A grade of "W" will be assigned before the course drop deadline and a grade of "F" after the course drop deadline. A grade of "F" received due to disciplinary action imposed by the University overrides a grade of "W" received through a student-initiated or faculty drop. Students will be notified of their drop through their UTEP e-mail account.

Complete Withdrawal from All Courses for the Semester

Students who withdraw from all courses for the semester must do so in person through the Registration and Records Office. Students who cannot drop in person may submit a fax with signature or an e-mail using their UTEP e-mail account. Athletes must receive permission from the Mner Athletic Advising Center before dropping all classes. International students with F or J visas must receive permission from the Office of International Programs before dropping all classes.

Students who drops all courses for the semester re-enroll based on their last academic standing as described in the Standards of Academic Performance section of this catalog. Students who were enrolled in professional programs such as Socail Work, Clinical Laboratory Science, Nursing, Occupational Therapy, Physical Therapy, and Speech-Language Pathology should check with their major department to determine their eligibility for re-enrollment in the program.

A student who withdraws from all classes for the semester immediately loses access to services and privileges available to enrolled students.

Complete Withdrawal Due to Academic Performance

After final grades have been posted for the current semester, and before late registration begins for the next semester, students whose academic standing makes them ineligible to re-enroll will be withdrawn from all their classes for the next semester. For further details, refer to the Standards of Academic Performance section in this catalog.

Complete Withdrawal Due to Medical Reasons

A student who must withdraw completely due to medical reasons must submit a letter to the Student Business Services Office from the attending physician, clinical psychologist, or licensed clinical practitioner on official letterhead with an original signature, stating the date(s) within the semester that the student was under medical care and that the student must withdraw due to the medical condition. This letter must be submitted within the semester, or no later than 90 days after the end of the term for which the withdrawal is being requested. If the student is unable to act on his or her own behalf, a representative may do this for the student.

Complete Withdrawal Due to Medical Conditions of a Family Member

A student who must withdraw completely due to a medical condition of an immediate family member must submit a letter to the Student Business Services Office from the family member's attending physician, clinical psychologist, or licensed clinical practitioner. The letter must be submitted on official letterhead with an original signature, state the date(s) within the semester that the student's immediate family member was under medical care, and confirm that the student must withdraw to attend to the immediate family member's medical condition. This letter must be submitted within the semester (or no later than 90 days after the end of the term for which the withdrawal is being requested). If the student is unable to act on his or her own behalf, a representative may do this for the student. "Immediate family member" may be defined as a husband, wife, parent, sibling, child, legal guardian, or grandparent; other relationships may be considered on a case by case basis.

Complete Withdrawal Due to Death of a Family Member

A student who must withdraw because of the death of an immediate family member must submit an official death certificate to the Student Business Services Office during the semester (or no later than 90 days after the end of the term for which the withdrawal is being requested). "Immediate family member" is defined as a husband, wife, parent, brother, sister, son, daughter, legal guardian, or grandparent. Once documentation has been received, the student will be withdrawn and grades assigned.

Complete Withdrawal Due to Death of Student

Upon the death of a student, the student's parent, spouse or legal guardian must submit an official death certificate to the Student Business Services Office within the semester (or no later than 90 days after the end of the term), so that the student can be withdrawn from all classes and grades assigned. Information concerning a refund can be found in the Refund of Tuition and Fees section of this catalog.

Complete Withdrawal Due to Active Military Service

Students who have to withdraw because they have been called to active military service must provide a copy of their military orders covering the affected semester to the Student Business Services Office. Grades will be assigned as described below. Military personnel may select one of the withdrawal options below according to the Texas Education Code, Chapter 54, Subchapter A, Sec. 54.006:

1. receive a refund of the tuition and fees paid for the withdrawn semester (see NOTE below);
2. if eligible, receive grades of Incomplete (I) from instructors, with the notation "Withdrawn – Military" appearing on the academic transcript (see section on *Incomplete or In-progress Work* in this catalog); or
3. receive an appropriate final grade or credit if the instructor determines that a substantial amount of coursework has been satisfactorily completed and sufficient mastery of the course material has been demonstrated.

Grade Assignment for Drops and Withdrawals

Grades will be assigned as follows when a student drops a course or completely withdraws from the University:

1. If a student drops a course before the official census date of a semester, neither the course nor a grade will appear on the student's academic record.
2. If a student drops from a course after the census date but before the student-initiated course drop deadline listed in the Class Schedule, a grade of "W" will be assigned.
3. If the student drops after the student-initiated course drop deadline, instructors will determine a grade of "W" or "F" for each course. A grade of "W" is considered only under exceptional circumstances and must be approved by the instructor and department chair for the course. A student may petition for a grade of "W" in writing with the necessary supporting documentation.

Financial information concerning drops and withdrawals can be found in the **Refund of Tuition and Fees** section of this catalog.





Curriculum and Classroom Policies

COURSE INFORMATION

Course Numbering System

Each course offered by The University of Texas at El Paso is identified by a four-digit course number. The first number indicates the level: 0 = developmental, 1 = freshman, 2 = sophomore, 3 = junior, 4 = senior, 5 or 6 = graduate. The second number indicates the semester hour value of the course. The last two numbers identify the course within its particular department.

- **Lower-Division Courses** are designated by a 1 or 2 as the first digit of the course number.
- **Upper-Division/Advanced Courses** are designated by a 3 or 4 as the first digit of the course number. The student should refer to the departmental and college requirements for specific conditions, if any, imposed on registration in advanced courses.
- **Graduate Courses** are designated by a 5 or 6 as the first digit of the course number.

Courses Taken on a Pass/Fail Basis

A student may elect to take an S or U (Pass/Fail) grade in a course, but this course cannot count as deficiency work or as a part of the minimum requirements for a degree except for internships and practica when designated by the department. The Pass/Fail option must be requested by or before the date listed in the *Class Schedule* and is not available for all courses. Check with the appropriate academic department for a listing of these courses.

Courses Counted for Another Degree

No course counted toward another degree may be counted toward a graduate degree, either directly or by substitution.

Reserving Courses for Graduate Credit

Undergraduates are not eligible to enroll in graduate level courses but under certain conditions, may request permission from the Graduate School to enroll in the graduate level courses. The undergraduate student must submit a graduate advisor approved Reservation for Graduate Credit form to the Graduate School. If approved, registration is processed by the Graduate School. Credit for graduate courses cannot be counted toward a baccalaureate degree; it can only be reserved for credit toward a graduate degree. A student who has a baccalaureate degree is not eligible to reserve courses for graduate credit unless enrolled at the undergraduate level working toward a second baccalaureate degree. The form for reserving courses is available at the Graduate School website. Approval to reserve work for graduate credit neither constitutes nor implies admission to any graduate program.

1. The undergraduate must not lack more than 12 semester hours (or six semester hours in summer session) of work to complete all requirements for the baccalaureate degree and must have a grade point average of at least 3.0 in junior and senior-level courses.
2. These 12 hours (or less) must all be completed in the same semester or summer session in which the graduate course(s) are taken.
3. Total enrollment for all work must not exceed 15 semester hours (or 9 hours in a summer session).
4. All enrollments in graduate courses must be approved prior to registration by the departmental graduate advisor and the Graduate School.
5. Graduate Research, Individual Studies or Seminar courses cannot be reserved for graduate credit.
6. This option is limited to one term.

Class Attendance

The student is expected to attend all classes and laboratory sessions. It is the responsibility of the student to inform each instructor of extended absences. When in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor may drop the student from the class with a grade of "W" before the course drop deadline and with a grade of "F" after the course drop deadline.

Excused Absences for University-Recognized Activities

Students who will be absent while representing the University in officially recognized University activities (sports, band, professional conferences, etc.) must notify the Dean of Students not less than ten days prior to the absence. The Dean of Students will provide the student with a letter of excuse for the professors. It is the student's responsibility to give the letter to the professors prior to the official recognized activity. Students following these procedures will be permitted to make up both assignments and examinations in consultation with faculty.

Absence for Religious Holy Days

"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20, *Tax Code*. Section 51.925 of the *Texas Education Code* related to absences by students for observance of religious holy days states that the institution shall excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. The student must provide written notice to the instructor of each course that he/she will be absent for a religious holy day not less than 10 days prior to the absence. If a student and an instructor disagree about the nature of the absence being for the observance of a religious holy day as defined therein, or if there is similar disagreement about whether the student has been given a reasonable time to complete any missed assignments or examinations, either the student or the instructor may request a ruling from the Provost or his or her designee. The student and instructor shall abide by the decision of the Provost or his/her designee.

Military Leave

Section 51.9111, *Texas Education Code*, provides that students be excused from scheduled classes or other required activities if the student is called to and participates in active military service for a reasonably brief period and that the student shall be allowed to complete an assignment or exam within a reasonable time after the absence.

Students called to active military service must provide a copy of their military orders to the instructor of each course.

Further information is available under Complete Withdrawal Due to Active Military Service.

Absence from Examinations

A student absent from a test during the semester is graded zero unless another policy is set by the instructor.

Dead Day

This specific day will be scheduled one day after the last day of classes only during the fall and spring semesters. The following policy will be observed:

1. No classes will be held on this day, except classes which meet once a week on that day.
2. Make-up exams should be left to the discretion of each individual instructor;
3. All student work (i.e., research papers, lab reports, term paper, etc.) should be due prior to this day.
4. If a comprehensive final is given, no new material, quizzes, or exams should be given two calendar days prior to Dead Day, and attention should be given to reviewing of semester material. Implementation of this recommendation is to be left to the discretion of the individual instructor.

Academic Integrity

The University of Texas at El Paso prides itself on its standards of academic excellence. In all matters of intellectual pursuit, UTEP faculty and students must strive to achieve excellence based on the quality of work produced by the individual. In the classroom and in all other academic activities, students are expected to uphold the highest standards of academic integrity. Any form of scholastic dishonesty is an affront to the pursuit of knowledge and jeopardizes the quality of the degree awarded to all graduates of UTEP. It is imperative, therefore, that the members of this academic community understand the regulations pertaining to academic integrity and that all faculty insist on adherence to these standards.

Any student who commits an act of scholastic dishonesty is subject to discipline. Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, and any act designed to give unfair advantage to a student or the attempt to commit such acts. Proven violations of the detailed regulations, as printed in the *Handbook of Operating Procedures (HOP)* and available in the Office of the Dean of Students and the homepage of The Dean of Students at www.utep.edu/dos, may result in sanctions ranging from disciplinary probation, to failing a grade on the work in question, to a failing grade in the course, to suspension or dismissal, among others.

GRADES AND GRADE POINT AVERAGES

Graduate students must maintain a 3.0 or higher cumulative GPA in both their major field and in any and all upper-division undergraduate and graduate-level work. Credit is given in the Graduate School for the grades "A," "B," and "C" only.

In some courses, the standard grading system is not practical; such grades are not used to compute the GPA. These grades include "I" (incomplete), "P" (in progress), "W" (withdrawal), and "S" or "U" (pass/fail).

For information on the grade appeal process, students should refer to the *Student Grievance Procedures* in the Student Life Policies and Procedures section of this catalog.

Incomplete or In-Progress Work

Assignment of the grade "I" (Incomplete) is made only in exceptional circumstances. The time span allowed for the work's completion cannot exceed one calendar year. In no case may repetition of the course be assigned as work to be completed. If the work has not been completed at the end of the specified time, the "I" will be changed to an "F."

A student will not be cleared for graduation until all incompletes, regardless of whether or not the courses are required for the degree, have been eliminated from the record. The student will be cleared for graduation at the end of the term that the Incomplete is eliminated from the academic record which may be different from the intended term of graduation as indicated on the Application for Graduate Degree.

The grade of "P" (in progress) is limited to specific courses in which re-enrollment is required. This includes all thesis/dissertation courses (5398-5399, 6320-6321, 6398-6399), graduate internships, and a few specified graduate courses. In appropriate courses, a standard grade may be assigned in graduate internship courses instead of a "P".

Grade Changes

Graduate students must submit a written request for a grade change to the faculty of record as soon as possible after the receipt of the grade but not later than one year after the semester in which the course in question was taken. A graduating student must request a grade change within **three months** after the last day of final examinations of the last semester enrolled. After this time, all grades become part of the student's official academic history and cannot be altered. A grade change must be approved by the faculty of record, the department Chair and the college Dean. Additional approval is required from the Graduate School for thesis/dissertation and project courses (5396-5397, 5398-5399, 6320-6321, 6398-6399). Students will receive notification of approved changes.

Grades may be changed as a result of (1) grade changes initiated by the instructor and approved by the appropriate department Chair and the college Dean, (2) grade change initiated by the department chair for cases where the instructor cannot be contacted and there exists clear and convincing evidence for a grade change, (3) grade change due to disciplinary action imposed by the Dean of Students or Hearing Officer for violation of University rules, or (4) action taken by the Student Welfare and Grievance Committee in grade appeal procedures.

Grades determined as a result of actions taken in items (3) or (4) above are final and not subject to change. No other grade change shall occur without the consent of the instructor. The Registrar shall notify the student and the instructor of any change of grade.

Academic Standing

Students admitted into graduate programs must remove all admissions conditions within one semester. Failure to meet conditions within one semester may result in dismissal from the Graduate School.

Students admitted into a graduate program must maintain a 3.0 or better cumulative grade point average in all courses. This includes any undergraduate courses taken for leveling purposes.

Non-degree, Teacher and Professional certification and/or endorsement students must maintain a cumulative grade point average of 2.5 or higher.

Individual departments may impose more rigorous grading standards.

Academic Probation and Dismissal

A student admitted into a graduate program whose cumulative grade point average drops below 3.0 will be placed on academic probation. The student must return the cumulative grade point average to a 3.0 by next semester of study. Failure to meet the 3.0 grade point average requirement during the probationary period will result in dismissal from the Graduate School.

the Graduate School.

A dismissed student will remain on suspension for one full semester before appealing for reinstatement. Appeals for reinstatement are submitted by the respective Graduate Studies Program Committee to the Dean of the Graduate School. Only the Dean of the Graduate School can approve reinstatement of dismissed students.

Appeals must include a plan of action describing the intervention that will take place to ensure student success. If readmitted, the student must raise the cumulative grade point average to a 3.0 by the end of the first semester of reinstatement or face permanent dismissal from the Graduate School.

Non-degree, Teacher and Professional certification and/or endorsement students whose cumulative grade point averages drop below 2.5 will be placed on academic probation. The cumulative grade point averages must be raised to at least a 2.5 by the end of the next semester of study. Failure to meet the 2.5 grade point average requirement during the probationary period will result in dismissal from the Graduate School.

Dismissed non-degree, teacher and professional certification and/or endorsement students will remain on suspension for one full semester before appealing for reinstatement. Appeals for reinstatement are submitted by the respective college Dean to the Dean of the Graduate School. Only the Dean of the Graduate School can approve reinstatement of dismissed students.



Student Educational Records

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

The *Family Educational Rights and Privacy Act (FERPA)*, 20 U.S.C. §1232g and the *Texas Public Information Act, Texas Government Code, § 552.001 et seq.* are federal and state laws that provide students with the following rights with respect to their student educational records:

- to inspect and review the student's education records
- to consent to disclosure of the student's education records to third parties, except to the extent that FERPA authorizes disclosure without consent
- to request amendment of the student's education records to ensure that they are not inaccurate or misleading
- to be notified of the student's privacy rights under FERPA
- to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA

The University of Texas System and The University of Texas at El Paso have implemented a student records policy that adheres to these laws.

Annual Notification

The University will notify its students annually of their rights according to FERPA and of the procedures for exercising their rights.

Definitions

A "student" is an individual who is or who is attending or has attended The University of Texas at El Paso. It does not include individuals who have been admitted but have not attended. "Attendance" includes attendance in person, by correspondence, online, and during periods when the student is working on an internship program.

"Education Records" include records directly related to a student that are maintained by the University. Education records do not include:

- Records of instructional, administrative, and educational personnel that are in the sole possession of the maker (i.e. file notes of conversations), are used only as a personal memory aid, and are not accessible or revealed to any individual except a temporary substitute
- Records of the University campus police
- Student medical and counseling records created, maintained, and used only in connection with provision of medical treatment or counseling to the student, that are not disclosed to anyone other than the individuals providing the treatment. (While a student may not inspect his or her medical records, these records may be reviewed by a physician of the student's choice)
- Employment records unrelated to the student's status as a student
- Alumni records.

"Directory Information" means information in a student's education record that would not generally be considered harmful or an invasion of privacy if disclosed. UTEP designates the following minimum information as directory information: student's name; local and permanent address; e-mail address; telephone number; date and place of birth; field of study; dates of attendance; enrollment status; student classification; degrees, certificates and awards (including scholarships) received; photographs; participation in officially recognized activities and sports; weight and height of members of athletic teams; and the most recent previous educational agency or institution attended.

"University official with a legitimate educational interest" is a person employed by the University in an administrative, supervisory, academic, or support staff position (including law enforcement unit and health staff); a person or company with whom the University has contracted or affiliation (such as an attorney, auditor, collection agent or clinical facility); a member of Board of Trustees; or a person assisting another university official in performing his or her tasks; who needs to review an education record in order to fulfill his or her professional responsibility.

Disclosure of Education Records

Disclosure without Prior Consent of the Student

The University will not disclose personally identifiable information from a student's education records without prior written consent of the student, except as authorized by FERPA. FERPA's authorizations for release without consent include the following:

Directory Information. Directory information (as defined above) may appear in public documents and may otherwise be disclosed without student consent unless a student submits a written request to the registrar during the first 12 days of class of a long semester, or the first day of the minimester, or the first four class days of a summer session, to withhold such information from disclosure. Requests to withhold directory information will be honored by the University for only the current enrollment period; therefore, a request to withhold Directory Information must be filed each semester or term in the Registration and Records Office.

University Officials. University officials with legitimate educational interests in the student's education records are allowed access to student education records. Inter-institutional disclosures may be made between institutions that administer or participate in joint programs or activities, in accordance with legitimate educational interest criteria. For example, if a student is concurrently enrolled in one component of the University of Texas and in another institution, or in two components of the University, or receives services from one component of the University and from another institution, or from two components of the University (or UT System), information from the student records of that individual may be disclosed by one University component to the other, or by the University component to the other institution, without obtaining the written consent of the student in accordance with legitimate educational interest criteria. This provision includes institutions participating in UT TeleCampus Programs.

Other Institutions. The University may release a student's education records to officials of other educational institutions in which that student seeks or intends to enroll or is enrolled.

Audit or Evaluation of Federal or State Education Programs. Authorized representatives of the Comptroller General of the United States, the Attorney General of the United States, the Secretary of Education and state and local educational authorities may have access to student records in connection with the audit and evaluation of federal or state supported education programs, or in connection with the enforcement of Federal law which relates to such programs.

Financial Aid. The University may release a student's education records to persons or organizations in connection with that student's application for, or receipt of, financial aid, but only to the extent necessary for such purposes as determining eligibility, amount, conditions, and enforcement of terms or conditions of such financial aid.

State and Local Officials Pursuant to Statute Concerning Juvenile Justice. The University may release education records to state and local officials that are authorized by statute to access student education records to efficiently serve the student.

Organizations Conducting Studies. The University may release a student's education records to organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs, and improving instruction, if such studies are conducted in a manner which will not permit the personal identification of students and/or their parents by individuals other than representatives of the organization, and the information will be destroyed when no longer needed for the purposes for which the study was conducted. The term "organizations" includes, but is not limited to, federal, state, and local agencies, and independent organizations.

Accrediting Organizations. The University may release a student's education records to accrediting organizations in order to carry out their accrediting functions.

Parents of Dependents. Parents of a student who is a dependent for federal tax purposes, as defined by Section 152 of the Internal Revenue Code of 1954, may have access to that student's education records without prior consent of the student. Parents may demonstrate the tax dependency of a student only by submitting to the University a copy of their most recently filed federal income tax return. Alternatively, a student may demonstrate tax dependency, and thus allow parental access to the student's records without prior consent of the student, by submitting to the University a signed statement of his or her tax dependency. If a dependent student's parents are divorced, both parents may have access to the student's records, so long as at least one parent claims the student as a dependent.

Judicial Order or Subpoena. Information concerning a student shall be released in response to a judicial order or lawfully issued subpoena. The University will make reasonable efforts to notify the student of an order or subpoena before complying with it. However, the University shall not notify a student of a subpoena if it is from a federal grand jury or is for law enforcement purposes, and it provides that the University shall not disclose to any person the existence or contents of the subpoena or any information furnished in response to the subpoena. Education records may be disclosed to the U. S. Attorney General or his or her designee in response to an *ex parte* order concerning an authorized investigation or prosecution of domestic or international terrorism, without prior notice to the student.

Health and Safety. The University may disclose student information to persons in an emergency in order to protect the health and safety of the student or others in the University community.

Disciplinary Hearing Results

Disclosure to Victims: The University may disclose to an alleged victim of any crime of violence (as that term is defined in Chapter 1, Section 16 of Title 18, United States Code), or a non-forcible sex offense, the final results of any disciplinary proceeding conducted by the University against the alleged perpetrator of such crime or offense, regardless of whether the alleged perpetrator was found responsible for violating the University's rules or policies with respect to such crime or offense.

Disclosure to Third Parties: The University may disclose the final results of any disciplinary proceeding against a student who is an alleged perpetrator of any crime of violence or non-forcible sex offense (as those terms are defined in 34 C.F.R. 99.39), if the student is found responsible on or after October 7, 1998, for violating the University's rules or policies with respect to such crime or offense. Such disclosure shall include only the name of the student, the violation committed, and any sanction imposed by the University on that student. Such disclosure may include the name of any other student, such as a victim or witness, only with the written consent of that other student.

Alcohol and Drug Violations. The University may disclose to a parent or legal guardian of a student, information regarding any violation of any federal, state, or local law, or of any rule or policy of the University, governing the use or possession of alcohol or a controlled substance, regardless of whether that information is contained in the student's education records, if the student is under the age of 21 at the time of disclosure to the parent, and the University determines that the student is responsible for a disciplinary violation with respect to such use or possession.

Disclosure to the Student

The student has the right, on request to the appropriate University official, to review all materials that are in the student's education records, except:

- Financial information submitted by the student's parents
- Confidential letters and recommendations associated with admissions, employment or job placement, or honors, to which the student has waived rights of inspection and review (the University is not required to permit students to inspect and review confidential letters and recommendations placed in their files prior to January 1, 1975, provided those letters were collected under established policies of confidentiality and were used only for the purposes for which they were collected)
- Education records containing information about more than one student, in which case the University will permit access only to that part of the record that pertains to the inquiring student.

The Vice President for Business Affairs is the official custodian of UTEP records, and that office maintains a list of those individuals responsible for education records, which are maintained at the campus locations listed below. Requests for access to specific student records should be made in writing to the University official responsible for the particular record. Records covered by FERPA will be made available within forty-five days of the request.

1. Academic Records

Admissions Office: Director

Graduate School: Dean

Registration and Records: Registrar

College, Division, Department, and Faculty Offices

2. Student Services Records

University Counseling Services: Director

Student Activities Center: Director

Student Services: Dean of Students

3. Financial Records

Business Office: Vice President for Financial and Administration

Financial Aid Office: Director

Scholarships Office: Director

Students may request copies of their educational records and this policy. These copies will be made at the student's expense at rates authorized in the Texas Public Information Act except that official transcripts will cost \$ 5.00. Official copies of academic transcripts will not be released for students who have a delinquent financial obligation or financial "hold" at the University.

Disclosure with Prior Consent of the Student

With the student's prior consent, the University will release personally identifiable student information in education records or allow access to those records. Such consent must be written, signed and dated, and must specify the records to be disclosed, the party to whom the records are to be disclosed, and the purpose of the disclosure. Research papers and theses authorized by the student will be available to interested members of the public.

Record of Disclosures

The University will maintain with the student's education records a record for each disclosure request and each disclosure, except disclosures:

- to the student himself or herself
- pursuant to the written consent of the student
- to University officials with legitimate educational interests
- pursuant to a law enforcement subpoena and the issuing court or other issuing agency has ordered that the existence or the contents of the subpoena or the information furnished in response to the subpoena not be disclosed or the order is concerning an authorized investigation or prosecution of domestic or international terrorism

- of directory information.

Requests to Amend Records

A student who believes that his or her education records are inaccurate or misleading, or that the records violate his or her privacy rights, may informally discuss amendment of the record with the University office concerned with the particular record. If agreement is reached with respect to the student's request, the appropriate records will be amended. [Note: The substantive judgment of a faculty member about a student's work, expressed in grades and/or evaluations, is not within the purview of this right to seek amendment of education records.] If the record is not amended pursuant to the student's request, the University will inform the student of its decision and of the student's right to request a formal hearing.

The request must be made in writing to the UTEP Vice President for Business Affairs who, within a reasonable period of time after receiving such request, will inform the student of the date, place, and time of the hearing. A student may present evidence relevant to the issues raised and may be assisted or represented at the hearing by one or more persons of the student's choice, including attorneys, at the student's expense. The hearing officer that will adjudicate such challenges will be appointed by the President. The decision of the hearing officer will be final, will be based solely on the evidence presented at the hearing, and will consist of a written statement summarizing the evidence and stating the reasons for the decision, and will be delivered to all parties concerned. If the decision is in favor of the student, the education records will be corrected or amended in accordance with the decision of the hearing officer. If the decision is unsatisfactory to the student, the student may place with the education records a statement commenting on the information in the records or a statement setting forth any reasons for disagreeing with the decisions of the hearing officer, or both. The statement will be placed in the education records, maintained as part of the student's records, and released whenever the records in question are disclosed. Students who believe that the adjudications of their challenges were unfair or not in keeping with the provisions of the Act may request in writing, assistance from the President of the institution.

Disclosure for Directory Information to the Texas Higher Education Coordinating Board (the State of Texas Educational Governing Entity)

FERPA allows, with the student's consent, for the Texas Higher Education Coordinating Board to disclose the number of semester credit hours that the student has taken at The University of Texas at El Paso to other institutions of higher education for the purpose of confirming these hours for transfer and related issues. Students may have all Directory Information withheld by notifying the Registrar and Records Office in writing each semester during the first 12 days of class of a long semester, or the first day of the minimester, or the first four class days of a summer session. Requests to withhold directory information will be honored by the University for only the current enrollment period; therefore, a request to withhold directory information to THECB must be filed each semester or session in the Registration and Records Office.

Collection of Personal Information

With few exceptions, under Sections 552.021 and 552.023 of the Texas Government Code, students are entitled at their request to receive and review the information UTEP collects about them. Under Section 559.004 of the Texas Government Code, they are entitled to have The University of Texas at El Paso correct information about them that has been collected and is incorrect, in accordance with the procedures set forth in the University of Texas System Business Procedures Memorandum 32. The information that The University of Texas at El Paso collects will be retained and maintained as required by Texas records retention laws (Section 441.180 et seq. of The Texas Government Code) and rules. Different types of information are kept for different periods of time.



STUDENT LIFE POLICIES AND PROCEDURES

General Regulations

- Student Conduct
- Prohibited Conduct
- Illegal Substances Policy
- Disruptive Acts Policy
- Hazing Policy
- Solicitation
- Student Travel Policy
- Compulsory Inspection of Vehicle
- Immunization Requirement
- AIDS, HIV, and Hepatitis B Infection Policy
- Bacterial Meningitis
- Student Right-to-Know and Campus Security Act
- Student Grievance Procedures
- Equal Educational Opportunity







General Regulations

Detailed policies and procedures affecting student life are printed in the *Handbook of Operating Procedures (HOP)* student section and are available on the Internet at <http://hoop.utep.edu>. The handbook supplements the rules and regulations of the Board of Regents and covers student conduct and discipline, use of University facilities, student organizations, educational records, and student publications. The *Rules and Regulations* of the Board of Regents of The University of Texas System are at www.utsystem.edu/bor/rules. The President has delegated responsibility for the administration of student discipline (academic dishonesty and general misconduct) to the Dean of Students.

STUDENT CONDUCT

While enrolled at the University, a student neither loses the rights nor escapes the responsibilities of citizenship. Any student who engages in conduct that is prohibited by the Board of Regents' *Rules and Regulations* or University rules, or by federal, state, or local law is subject to discipline whether such conduct takes place on or off campus or whether civil or criminal penalties are also imposed for such conduct. All students are expected and required to obey the law, to show respect for properly constituted authority, and to observe correct standards of conduct.

The University of Texas at El Paso administers student discipline according to established procedures of due process. Procedures are defined and described in the *Rules and Regulations* of the Board of Regents, Rule 50101, and in the *Handbook of Operating Procedures (HOP)*.

Students should check with appropriate departments whose policy or regulation is of concern. If necessary, students need to refer to the rules in the Regents' Rules (<http://www.utsystem.edu/bor/rules>) and the HOP. The Office of the Dean of Students can assist on this matter. This set of rules is available at <http://hoop.utep.edu>.

OTHER PROHIBITED CONDUCT

Computer usage violations, use of alcoholic beverages, dishonesty, gambling, defacing of property, endangering the health or safety of others, use of obscene and threatening language, altering of records, possession or use of firearms, failure to respond promptly to official notices, etc. will subject the student to disciplinary action.

Penalties, which may be imposed in conjunction with the approved disciplinary procedures, include the following: written warning, disciplinary probation, withholding of grades, withholding of official transcript or degree, restitution, failing grade, denial of degree, suspension and expulsion, revocation of degree and withdrawal of diploma, or other penalty as deemed appropriate under the circumstances. In addition, certain privileges may be withdrawn consistent with the severity of the offense and the rehabilitation of the student. These penalties may be imposed singularly or in any combination upon individuals, groups, or organizations.

ILLEGAL SUBSTANCES POLICY

The use, possession, or sale of any illegal drugs or narcotics including any amount of marijuana on the campus of the University is a violation of Regents' *Rules and Regulations* and of University policies governing student conduct, as well as a violation of State Law. In addition to possible criminal prosecution, student offenders will be subject to disciplinary action by the University. The minimum disciplinary penalty that will be imposed is suspension from the University for a specified period of time and/or suspension of rights and privileges.

DISRUPTIVE ACTS POLICY

The obstruction or disruption of any teaching, research, administrative, disciplinary, public service, or other authorized activity on campus or under the authority of the University or on property owned or controlled by the University is prohibited and will subject the student or group of students to disciplinary action.

HAZING POLICY

Hazing in state educational institutions is prohibited by both state law (Sections 51.936 and 37.151 et seq., *Texas Education Code*) and by the Regents' *Rules and Regulations* (Rule 50101, sec. 2.8). Individuals or organizations engaging in hazing could be subject to fines and charged with criminal offenses. Additionally, the law does not affect or in any way restrict the right of the University to enforce its own rules against hazing.

The law defines hazing as any intentional, knowing, or reckless act, occurring on or off the campus of an educational institution, by one person alone or acting with others, directed against a student, that endangers the mental or physical health or safety of a student for the purpose of pledging, being initiated into, affiliating with, holding office in, or maintaining membership in any organization whose members are or include students at an educational institution. Hazing includes but is not limited to:

1. Any type of physical brutality, such as whipping, beating, striking, branding, electronic shocking, placing of a harmful substance on the body, or similar activity;
 2. Any type of physical activity, such as sleep deprivation, exposure to the elements, confinement in a small space, calisthenics, or other activity that subjects the student to an unreasonable risk or harm or that adversely affects the mental or physical health or safety of the student;
 3. Any activity involving consumption of food, liquid, alcoholic beverage, liquor, drug, or other substance which subjects the student to an unreasonable risk or harm or which adversely affects the mental or physical health of the student;
 4. Any activity that intimidates or threatens the student with ostracism; that subjects the student to extreme mental stress, shame, or humiliation; or that adversely affects the mental health or dignity of the student or discourages the student from entering or remaining registered in an educational institution; or that may reasonably be expected to cause a student to leave the organization or the institution rather than submit to acts described in this subsection;
 5. Any activity that induces, causes, or requires the student to perform a duty or task which involves a violation of the Penal Code.
- Activities which under certain conditions constitute acts that are dangerous, harmful, or degrading, in violation of Rules include but are not limited to:

- calisthenics, such as sit-ups, push-ups, or any other form of physical exercise;
- total or partial nudity at any time;
- the eating or ingesting of unwanted substance;
- the wearing or carrying of any obscene or physically burdensome article;
- paddle swats, including the trading of swats;
- pushing, shoving, tackling, or any other physical contact;
- throwing oil; syrup, flour, or any other individual interrogation;
- forced consumption of alcoholic beverages either by threats or peer pressure;
- lineups intended to demean or intimidate;

- groups intended to demean or intimidate;
- transportation and abandonment (road trips, kidnaps, walks, rides, drops);
- confining individuals in an area that is uncomfortable or dangerous (hot box effect, high temperature, too small);
- any type of personal servitude that is demeaning or of personal benefit to the individual members;
- wearing of embarrassing or uncomfortable clothing;
- assigning pranks such as stealing, painting objects, harassing other organizations;
- intentionally messing up the house or room for clean up;
- demeaning names;
- yelling and screaming; and
- requiring boxing matches or fights for entertainment.

The University regards any form of hazing as a major violation, and any individual and/or registered student organization participating in such activities will be held responsible for those actions. According to the law, a person can commit a hazing offense not only by engaging in a hazing activity, but also by soliciting, directing, encouraging, aiding, or attempting to aid another engaging in hazing; by intentionally, knowingly, or recklessly allowing hazing to occur; or by failing to report first-hand knowledge that a hazing incident is planned or has occurred in writing to the Dean of Students or other appropriate University officials. The fact that a person consented to or acquiesced in a hazing activity is *not* a defense to prosecution for hazing under this law.

An organization can commit a hazing offense if the organization condones or encourages hazing or if an officer or any combination of members, pledges, or alumni of the organization commits or assists in the commission of hazing.

In an effort to encourage reporting of hazing incidents, the law grants immunity from civil or criminal liability to any person who reports a specific hazing event in good faith and without malice to the Dean of Students or other appropriate University Officials, and it immunizes a person from participation in any judicial proceeding resulting from that report.

SOLICITATION

In general, solicitation is prohibited in any building, structure, or facility of the UTEP campus. Certain university activities are permitted as defined in the Handbook of Operating Procedures. This handbook is available for review in the Office of the Dean of Students and on the homepage of the Dean of Students at <https://studentaffairs.utep.edu/dos>.

STUDENT TRAVEL POLICY

Purpose

It is our policy to promote safe travel by students who participate in certain university organized and sponsored activities or events.

Policy and Procedure

1. This Policy is applicable to student travel undertaken by one or more currently enrolled students to reach an activity or event that meets **all** of the following criteria:
 - a. **An activity or event organized and sponsored by the university.** An activity or event is considered to be organized and sponsored if it has been planned and funded by the University and approved in writing by the designated administrator. The types of activities and events covered by this policy include course related field trips, recreational sports club trips, departmental sponsored trips, the activities of sponsored student organizations, and meetings of academic organizations where a student is officially representing the university, **and**

- b. **The activity or event is located more than 25 miles from the University; and**

- c. (i) **Travel to the activity or event is funded and undertaken using a vehicle owned or leased by the University; or**

- (ii) **Attendance at the activity or event is required by a registered student organization and approved in accordance with this Policy.**

2. Registered student organizations that require their members to travel 25 miles or more from the university to attend an activity or event covered by this Policy must obtain prior written approval for the proposed travel by the designated administrator.

3. The following provisions will apply to all travel covered by this Policy.

- a. All Motor Vehicle Travel.

Seat Belts:

Occupants of motor vehicles shall use seat belts or other approved safety restraint devices required by law or regulation at all times when the vehicle is in operation.

Alcohol and Illegal Substances Prohibited:

Occupants of motor vehicles shall not consume, possess, or transport any alcoholic beverages or illegal substances.

Passenger Capacity:

The total number of passengers in any vehicle at any time it is in operation shall not exceed the manufacturer's recommended capacity or the number specified in applicable federal or State law or regulations, whichever is lower. Where applicable, all travel participants are required to comply with The University of Texas System Business Procedure Memorandum 16-05-02, including, but not limited to, provisions concerning vehicle passenger capacity.

License and Training:

Each operator of a motor vehicle shall have a valid operator's license and be trained as required by law to drive the vehicle that will be used.

Proof of Insurance, Inspection, and Safety Devices:

Each motor vehicle must have a current proof of liability insurance card and State inspection certification, be equipped with all safety devices or equipment required by federal or State law or regulation, and comply with all other applicable requirements of federal or State law or regulations.

Legal Operation of Vehicle and Driving Schedule:

Operators of motor vehicles shall comply with all laws, regulations, and posted signs regarding speed and traffic control and shall not operate the vehicle for a continuous period that is longer than the maximum provided by federal or State law or regulations or guidelines promulgated by the University, whichever is lower, without scheduled rest stops or overnight stops.

- b. Travel Using a Vehicle Owned or Leased by the University.

Service and Maintenance:

In addition to those provisions in Item 3.a., each vehicle owned or leased by the University must be subject to scheduled periodic service and maintenance by qualified persons and comply with all applicable requirements of The University of Texas System Business Procedure Memorandum 16-05-02.

Operators of Vehicles:

All operators of vehicles owned or leased by the University shall be employees of the university and shall have a valid operator's license for the operation of the particular vehicle. In addition, operators shall have a current Motor Vehicle Record on file with the designated office of the university.

- c. Travel Using Rented Vehicles.

In addition to those provisions specified in Item 3.a., the rental, use, and operation of all rented vehicles shall comply, where applicable, with the State contracts for rental cars and all applicable requirements of The University of Texas System Business Procedure Memorandum 16-05-02.

d. Travel by Common Carrier.

When a common carrier (bus, airline, etc.) is used for student travel covered by this Policy, all reasonable steps will be taken to assure the travel is undertaken in conformance with this Policy and all applicable federal, State, local, and university regulations.

4. Students are responsible for abiding by the rules and regulations contained in the UTEP Handbook of Operating Procedures while they are traveling. The sponsoring department may promulgate additional rules concerning expectations of students while on the trip.

5. As part of the approval process, all participants must sign an appropriate Release and Indemnification Agreement. All persons driving personal vehicles for travel covered by this policy must agree to comply with the requirements of 3.a. and produce some evidence of a valid operator's license for the vehicle to be used, current proof of liability insurance and Texas State inspection certificate.

COMPULSORY INSPECTION OF VEHICLE

It is mandatory for all students enrolled in public institutions of higher education in the State of Texas to be in compliance with Vehicle Emissions Testing Laws before privileges may be granted to park or drive a motor vehicle that is not registered in this state on institutional property.

For further details, please consult the Transportation Code, Chapter 548, Subchapter F: Motor Vehicle Emissions Inspection and Maintenance. A full copy of the legislation is available in the University's Parking Rules and regulations.

IMMUNIZATION REQUIREMENT

The health and safety of students is paramount to the University. Although certain immunizations are required only of students enrolled in specific health-related courses and programs, all students are strongly encouraged to obtain them for their own protection. Students may obtain information regarding the consequences of outdated immunizations for certain diseases, the age groups most vulnerable to these vaccine preventable diseases, and local providers of immunization services from the Student Health Center located on campus. Immunizations are available at the Student Health Center. To obtain information call (915) 747-5624. Students are responsible for the full cost of any immunizations for which a fee is charged.

In accordance with State law, the following immunizations are required for all students enrolled in health-related courses which will involve direct patient contact in medical or dental care facilities or who come in contact with human biological fluids or tissue. Students enrolled at UTEP will assume the cost of all vaccinations.

- **Measles:** proof of two doses of measles vaccine administered on or after the first birthday and at least 30 days apart or proof of immunity;
- **Mumps:** proof of one dose of mumps vaccine administered on or after the first birthday or proof of immunity;
- **Rubella:** proof of one dose administered on or after the first birthday or proof of immunity;
- **Tetanus/diphtheria:** proof of one "booster" dose of tetanus/diphtheria (within 10 years);
- **Hepatitis B virus (HBV):** proof of serologic immunity to HBV or certification of immunization with a complete series of Hepatitis B vaccine. Students will be required to present required to present a letter or other suitable written certification.

Note: Some colleges or academic departments may require additional immunizations. Certain exemptions are allowed from the immunization requirements. For further information, students should contact the Student Health Center or the academic department responsible for the courses or programs requiring immunizations.

A form on which the required immunizations can be documented is available from the Admissions Office or the Student Health Center. Since most secondary schools are required by law to maintain similar records, a copy of the high school immunization record may be submitted.

The Student Health Center is responsible for maintaining a record of those students who comply with these requirements and may recommend the placement of an administrative hold on records if they have not been met. The Student Health Center provides the required immunizations for all academic programs; however no X-ray screening is available. The HB vaccine is also available for a nominal charge for students enrolled in medical-related programs.

AIDS, HIV, AND HEPATITIS B INFECTION POLICY

The University of Texas at El Paso recognizes Acquired Immune Deficiency Syndrome (AIDS), Human Immunodeficiency Virus (HIV), and Hepatitis B Virus (HBV) as serious public health threats and is committed to encouraging an informed and educated response to issues and questions concerning AIDS, HIV, and HBV. To demonstrate its commitment, UTEP has adopted a policy and procedural steps to protect both the rights and well being of those students, employees, and patients who may be infected with HIV or HBV as well as to prevent the spread of infection. No individual with HIV or HBV infection will be discriminated against in employment, admission to academic programs, health benefits, or access to facilities. Students with HIV or HBV infection may attend all classes without restriction, as long as they are physically and mentally able to participate and perform assigned work and pose no health risks to others. All information regarding the medical status of UTEP, faculty, staff, and students is confidential.

A complete copy of the "AIDS, HIV and Hepatitis B Infection" policy can be found in the institutional *Handbook of Operating Procedures (HOP)* available in the Dean of Students Office, the Library, and the Student Health Center. This policy is applicable to all students of UTEP as they pursue their academic (and clinical) endeavors. An educational pamphlet on HIV infection developed by the U.S. Department of Health and Human Services and the Public Health Service will be made available to all students from the Student Health Center.

BACTERIAL MENINGITIS

This information is being provided to all new college students in the state of Texas. Bacterial Meningitis is a serious, potentially deadly disease that can progress extremely fast-so take utmost caution. It is an inflammation of the membranes that surround the brain and spinal cord. The bacterium that causes meningitis can also infect the blood. This disease strikes about 3,000 Americans each year, including 100-125 on college campuses, leading to 5-15 deaths among college students every year. There is a treatment, but those who survive may develop severe health problems or disabilities.

What are the symptoms?

- High fever
- Light sensitivity
- Confusion and sleepiness
- Lethargy
- Severe headache
- Rash or purple patches on skin: There may be a rash of tiny, red-purple spots caused by bleeding under the skin. These can occur anywhere on the body.
- Vomiting
- Stiff neck
- Nausea
- Seizures

The more symptoms, the higher the risk, so when these symptoms appear, seek immediate medical attention.

How is Bacterial Meningitis diagnosed?

- Diagnosis is made by a medical provider and is usually based on a combination of clinical symptoms and laboratory results from spinal fluid and blood tests.
- **Early diagnosis and treatment can greatly improve the likelihood of recovery.**

How is the disease transmitted?

- The disease is transmitted when people exchange saliva (such as by kissing, or by sharing drinking containers, utensils, cigarettes, toothbrushes, etc.) or come in contact with respiratory or throat secretions.

How do you increase your risk of getting Bacterial Meningitis?

- Exposure to saliva by sharing cigarettes, water bottles, eating utensils, food, kissing, etc.
- Living in close conditions (such as sharing a room/suite in a dorm or group home).

What are the possible consequences of the disease?

- Death (*in 8 to 24 hours from perfectly well to dead*)
- Permanent brain damage
- Kidney failure
- Learning Disability
- Hearing loss, blindness
- Limb damage (fingers, toes, arms, legs) that requires amputation
- Gangrene
- Coma
- Convulsions

Can the disease be treated?

- Antibiotic treatment, if received early, can save lives and chances of recovery are increased. However, permanent disability or death can still occur.
- Vaccinations are available and should be considered for:
 - Those living in close quarters
 - College students 25 years old or younger
- Vaccinations are effective against 4 of the 5 most common bacterial types that cause 70% of the disease in the U.S. (but does not protect against all types of meningitis).
- Vaccinations take 7-10 days to become effective, with protections lasting a minimum of 8 years.
- The cost of the vaccine varies, so check with your health care provider.
- Vaccination is very safe-most common side effects are redness and minor pain at injection site for up to two days.
- Vaccination is available at UTEP Student Health Center, on a walk-in basis.
- The City County Health Department, Immunization Outreach at (915) 591-2050
- Pro Action-Tillman Health Center at (915) 533-3414

How can I find out more information?

- Contact your own health care provider.
- Contact your Student Health Center at (915) 747-5624
- Contact your local or regional Texas Department of Health Office at (915) 834-7853.
- Contact websites: <http://www.dcd.gov/ncidod/dbmd/diseaseinfo>; <http://www.acha.org>

Requirement to obtain information on Bacterial Meningitis

- All incoming undergraduate and graduate students are required to obtain information about Bacterial Meningitis and sign an acknowledgement form with the Records Office, located in the Academic Services Building.

STUDENT RIGHT-TO-KNOW AND CAMPUS SECURITY ACT

In compliance with the Jeanne Clery Disclosure of Campus Security Police and Campus Crime Statistics Act of 1998. The University of Texas at El Paso collects specified information on campus crime statistics, campus security policies, and institutional completion or graduation rates. Pursuant to the federal law, alleged victims of violent crime are entitled to know the results of campus student disciplinary proceedings concerning the alleged perpetrators.

UTEP makes timely reports to the campus community on crimes considered to be a threat to students and employees, and crimes are reported to campus police or local police agencies.

Every October, UTEP publishes and distributes an annual report of campus security policies and crime statistics to all current students and employees, provides copies of the report to applicants for enrollment or employment upon request, and submits a copy of the report to the Secretary of Education upon request. The annual campus crime statistics report references crimes which occur on the campus property owned or controlled by UTEP or within a contiguous geographic area of the institution. Statistics for off-campus buildings or property owned by student organizations that are registered by the institution are also reported when such statistics are available from local police departments.

In addition, UTEP publishes in the annual security report its policy regarding sex-related offenses, including sexual assault prevention programs, education programs to promote awareness of sex offenses, administrative disciplinary procedures and sanctions for offenders, and counseling and student services for victims.

UTEP annually calculates and discloses institutional completion or graduation rates for undergraduate students to all prospective and current students. (The federal requirement for calculation of a completion or graduation rate applies only to institutions of higher education that admit undergraduate students who are enrolling for the first time at an institution of higher education and have not enrolled previously at any other institution of higher education.) Prior to the offer of athletically-related student aid to a potential student athlete, UTEP provides certain information on graduation rates specified by the Act to the prospective student and to the student's parents, guidance counselor, and coach.

Further information concerning Student Right-To-Know and Campus Security can be found at the following web site: www.campusafety.org and at <https://admin.utep.edu/police>.

STUDENT GRIEVANCE PROCEDURES

Grade Appeals

A student may challenge his/her grade as determined by a member of the faculty of the University during or within one year after the end of any credit course, qualifying or comprehensive examination, for which the student has been enrolled or three months following the term the graduate degree was awarded. A challenge to a grade may be pursued only on the basis of malice, bias, arbitrary, or capricious grade determination, or impermissible discrimination. In no event shall a challenge be pursued on the basis of the standards employed in setting grades, so long as those standards are employed impartially.

The student should first attempt to resolve the question through consultation with the faculty member who assigned the grade. The student should then attempt to resolve the question through consultation with the administrator(s) to whom the faculty member reports. Having failed to resolve the matter after consultation with both the faculty member and her/his supervisors, the student may consult with and/or file a challenge with the Chairperson of the Student Welfare and Grievance Committee. Students should contact the Dean of Students for specific information or download a copy of the grievance form and instructions on the Dean of Students web page at <http://studentaffairs.utep.edu/dos> and click on Student Conduct.

Non-Academic Grievances

Non-academic grievances of policies and procedures of University departments related to matters other than discrimination, such as the application or interpretation of student policies, must be initiated by making an effort to resolve the matter with the individual involved in the interpretation or decision. If the matter is not resolved, it must be submitted in writing to Provost or his/her designee within 10 working days of the questioned decision or interpretation.

EQUAL EDUCATIONAL OPPORTUNITY

To the extent provided by applicable law, no person shall be excluded from participation in, denied benefits of, or be subject to discrimination under any program or activity sponsored or conducted by the University of Texas at El Paso on the basis of race, color, national origin, religion, sex, age, veteran status, disability, or sexual orientation.

Complaints regarding discrimination should be reported to the University's Equal Opportunity/Affirmative Action Office. The University's full policies, including complaint resolution procedures, on equal opportunity, sexual harassment and misconduct and accommodations for individuals with disabilities are available in *Handbook of Operating Procedures and on the web page of UTEP's Equal Opportunity/Affirmative Action Office*. Inquiries regarding applicable policies should be addressed to the University's Equal Opportunity/Affirmative Action Office, Kelly Hall, 3rd Floor, or at (915) 747-5662 or eeoa@utep.edu.



FACILITIES AND STUDENT SERVICES

Academic and Research Facilities

Student Services

- Adelante Child Development Center
- Campus Cultural Programs
- Career Services
- Disabled Student Services
- El Paso Centennial Museum/ Chihuahuan Desert Gardens
- Food Services
- Intercollegiate Athletics
- International Programs
- Study Abroad Programs
- KTEP Public Radio
- Mner Village
- Professional and Continuing Education
- Recreational Sports
- Special Events
- Student Development Center
- Student Government Association
- Student Health Center
- Student Publications
- Student Support Services Program (SSSP)
- Union
- University Bookstore
- University Counseling Center
- Women's Resource Center







Academic and Research Facilities

The property, buildings, or facilities owned or controlled by The University of Texas at El Paso are not open to the general public for assembly, speech, or other activities, and such uses by students and employees are subject to reasonable regulation.

No person, organization, group, association, or corporation may use property, buildings, or facilities owned or controlled by The University of Texas at El Paso for any purpose other than in the course of the regular programs or activities related to the role and mission of the University, unless authorized by the *Rules and Regulations* of the Board of Regents of the University of Texas System. Any authorized use must be conducted in compliance with the provisions of the Regents' *Rules and Regulations*, the rules and regulations of The University of Texas at El Paso, and applicable federal, state, and local laws and regulations.

UNIVERSITY LIBRARY

Housing over one million books and government publications, as well as close to two million microforms, the University Library strives to support the curriculum and research needs of the campus. The collection also includes access to over 24,000 journals and newspapers, and more than 445 databases providing bibliographic information, as well as selected abstracts, full text research articles and reports. The Library is classified as a Federal Depository, meaning it collects over 65% of all materials published by the Federal Government.

Housed in a six-story Bhutanese style building, with a coffee shop and both formal and casual seating for over 1,500 users, the Library is open on a daily basis to serve students, faculty, and the community. The Collaborative Learning Center, located on the 2nd floor of the Library, has 250 PC's/ Macintosh desktops and 35 Laptops available for student use. Various software packages are available, and the computers have complete internet access. Group study rooms and individual graduate study carrels are conveniently located throughout the library.

Books, journals, and audio-visual materials are easily found in "Nugget" the Library's computerized catalog. The catalog is easily searched by author, title, subject, and key word, and is accessible from computers located in the library, any computer on campus, or from a user's home computer. Most materials are available for loan to University students, faculty, and staff.

The professional staff of the Reference Department provides classroom instruction on Information Literacy, both in the Library's three computer classrooms, or in campus classrooms as requested by faculty. The Reference staff also provides assistance in locating and using the electronic resources of the Library, as well as the traditional hard copy resources. Librarians are available to provide assistance with specialized collections in all subject matters.

Special Collections, located on the 6th floor of the Library, house rare books and other unique artifacts and collections. Key among these holdings are collections in the following areas: Art, Printing, Military History, Western Fiction, Chicano Studies, Border Studies, and Oral History. The Library's manuscript and archival materials are also located in the Special Collections Department.

The Access Services Department provides automated checkout services, makes reserve materials available, and provides inter-library loan/document delivery services. M&M (Media and Microforms) houses retrospective newspapers, microforms, DVD and video tapes, and computers. Support for students and faculty, who are involved in distance education, is also provided by the library. This support includes delivery of books and other materials by surface mail, subject consultation with librarians, and access to electronic resources via the Internet.

Self-service photocopying equipment is available on all floors of the Library and a full-service Copy Center is located on the first floor.

INSTRUCTIONAL SUPPORT SERVICES

Instructional Support Services (ISS) serves as an academic resource and campus support unit for UTEP faculty, students, and staff engaged in asynchronous and distance delivered instruction. The services of the ISS office are focused on technical production, instructional design and pedagogical guidance and training-development programs for faculty engaged in the design and adaptation of instructional materials for fully online and hybrid courses at a distance as well as classes and meetings convened through interactive video conferences. Through its new Faculty Instructional Technology (F.I.T.) Lab, the ISS office provides UTEP faculty with state-of-the-art professional development and training opportunities. The F.I.T. Lab offers a well equipped self-service computer lab in which faculty can develop digital materials for instruction and research, as well as provides walk-in services and assistance to faculty in learning instructional technologies including access to a broad selection of specialized production software.

Distance Learning and Hybrid Courses

ISS is committed to providing graduate and undergraduate students, who are unable to take advantage of a traditional class schedule, with appropriate opportunities to participate in the learning process through the use of alternative media and methods for the delivery of instruction in a distance learning environment. ISS offers distance learning opportunities in hybrid and completely on-line formats for the UTEP campus. Through ISS the UTEP campus is also an active partner of the UT System TeleCampus (<http://www.telecampus.utsystem.edu>).

At their website you will find: online study programs, and courses, a digital library, free online student tutorial services, 24/7 technical support "helpdesk", links to various admissions and registrar offices throughout the UT System and full program descriptions for the available online courses and degrees the UT TeleCampus facilitates.

Students interested in undertaking distance courses through UTEP and the UT TeleCampus must be fully admitted to UTEP or to one of the other UT System academic university campus components by completing the Inter-Institutional Distance Education Admission and Registration (IDEAR) form online at the UT TeleCampus website (www.telecampus.utsystem.edu). Once admitted to one of the 15 University of Texas campuses, students can select courses offered through the distance education delivery options of the UT TeleCampus. Students are required to abide by the host university policies, procedures, and requirements regarding the course selection process, and student qualifications. Additional new on-line courses and program degree study options are routinely being added at UTEP and as a result, interested students are encouraged to consult the ISS website at UTEP for the most recent information: <http://iss.utep.edu>.

The Mediated and Distance Learning Group (MDL) at ISS also works in cooperation with UTEP faculty across the six academic colleges in the design, delivery, course management, and evaluation of distance education and online instructional programs. It also promotes and implements campus policies and practices to appropriately guide the growth and development of all UTEP distance education programs. In carrying out its mission, the ISS office collaborates with public and private institutions to meet the expanding needs for higher education and workforce retooling in the region. MDL and ISS staff works with UTEP faculty to develop instructional programs that integrate a variety of technology-based and electronic digital media materials, face-to-face instruction, World Wide Web (WWW), Internet, interactive videoconferencing, CD ROM, and other telecommunications technologies for teaching and learning.

Administrative offices for ISS are located in the Undergraduate Learning Center, Suite 308 and can be contacted by phone at (915) 747-6675.

The Border Biomedical Research Center (BBRC), developed and supported by grants from the National Institutes of Health, was established in 1992 as a basic biomedical research center in Infectious Diseases, Toxicology, and Neurological and Metabolic Disorders. The mission of the BBRC is to enhance the capability for biomedical research at the University of Texas at El Paso relevant to the Border region and to promote the progress of minority scientists in biomedical research. The BBRC's Core Facilities in Analytical Cytology, Cell Culture, Biomolecule Characterization and DNA Sequencing and Analysis all have state-of-the-art instrumentation. The BBRC also has an active **Statistical Consulting Laboratory**, and a modern Bioinformatics Laboratory. The BBRC will soon move to new facilities following completion of the new Biosciences Research Building. For more information visit the BBRC Web site at <https://www.utep.edu/bbrc>.

CENTER FOR CIVIC ENGAGEMENT (CCE)

The mission of the Center for Civic Engagement (CCE) at the University of Texas at El Paso is to engage faculty and students in the community through community-based teaching and learning in order to enhance student learning, promote civic engagement and actively improve the El Paso-Cd. Juarez Region.

The CCE, born in 1998, works with faculty and students in all colleges and collaborates with a wide variety of public agencies, schools, non-profit and community-based organizations. It aims to foster collaborative leadership, civility and deepen democracy in the region through what may be alternatively known as hands-on/action-oriented learning, civic education, Service Learning, and/or active citizenship.

Primarily grant funded, the CCE sponsors, among other activities, Community Partnership Classes; the Border Poll Crew, which encourages College students to participate in elections; the SHINE-ESL Adult Literacy and SHINE-Citizenship Adult Literacy programs, the TEAM (Tutoring Engagement and Mentoring) program; and the Just Read! Program for children in Pre-K through 4th grade.

CENTER FOR EFFECTIVE TEACHING AND LEARNING (CETaL)

The Center for Effective Teaching and Learning (CETaL) is a resource for University faculty. CETaL provides faculty with workshops, confidential consulting on issues of course and curriculum design, assessment and documentation of effective teaching, the opportunity for faculty mentoring, and a library of teaching and learning materials. Through these services, faculty can document their teaching effectiveness.

CETaL seeks to cultivate an environment where teaching is highly valued and where teachers strive continuously to improve their effectiveness. It is a scholarly center working to find, document, report, and help advance the best teaching practices at UTEP and elsewhere. In addition, CETaL aids faculty in conducting scholarly research on teaching, curriculum, and other issues related to teaching and learning.

CETaL is a resource for those who understand that teaching is a complex and interactive process among many parties in a variety of environments, and that it can be taught, improved, and evaluated.

CENTER FOR ENVIRONMENTAL RESOURCE MANAGEMENT (CERM)

The Center for Environmental Resource Management (CERM) coordinates faculty and student research addressing the environmental problems affecting the border region of the southwestern United States and northern Mexico, including hazardous waste, air quality, water availability and quality, ecology, environmental health, the built environment, environmental risks, sustainability, and policy issues. Students receiving support through CERM get hands-on experience on research projects addressing a variety of issues such as management of water resources, measurement and characterization of air pollution, methods of containment and remediation of soil-borne and water-borne contaminants, development of alternative energy technologies such as wind energy, and development of community-based training programs to help disadvantaged communities to restore and maintain environmental health. CERM also coordinates education, outreach and policy development programs, as well as UTEP's doctoral program in environmental science and engineering. CERM provides the research infrastructure needed to support major University environmental programs including the Energy Center, the Rio Bosque Wetlands Park, Indio Ranch Research Station, and the Southwest Center for Environmental Research and Policy Consortium (SCERP). In 2007, CERM received a Texas Environmental Excellence Award from the Texas Commission on Environmental Quality.

CENTER FOR INTER-AMERICAN AND BORDER STUDIES (CIBS)

The Center for Inter-American and Border Studies (CIBS) coordinates UTEP's degree programs in Latin American and Border Studies. These include the undergraduate major and minor, and an interdisciplinary MA. CIBS also conducts research and assists other units with research on the Border, in Mexico, and Latin America. Recent projects have focused on issues such as Border demography, Border health, Border governance, and Border economics. CIBS sponsors events and publications addressing Border and Latin American issues, and works to forge linkages between UTEP and other institutions and agencies in the Border region, in Mexico, and in Latin America.

CENTER FOR RESEARCH ON EDUCATIONAL REFORM

Established in 2002, the Center for Research on Educational Reform (CRER) conducts broad-based and multidisciplinary research on issues of educational reform in the public schools and in higher education. The university-wide Center builds on more than a decade of K-16 educational reform efforts at the University of Texas at El Paso. A significant element of the Center's initial work is research that addresses critically important questions about the impact of these and similar reform efforts. Major initiatives of the Center include the NSF-funded Mathematics and Science Partnership, Teaching Gender Equity in Mathematics and Science, and Math Education Reform. The Center also provides opportunities for faculty and graduate students to do significant research.

CENTER FOR TRANSPORTATION INFRASTRUCTURE SYSTEMS (CTIS)

The Center for Transportation Infrastructure Systems (CTIS), addresses the need for basic and applied research related to transportation infrastructure. CTIS is an internationally known center of excellence in nondestructive testing of transportation facilities; it is extensively involved in research dealing with the use of advanced field and laboratory techniques in transportation infrastructure, geo-technical earthquake engineering, and environmental engineering. At any given time, CTIS is engaged in about 20 projects dealing with the planning, design, evaluation, and construction of transportation infrastructure. CTIS has also expanded its research activities to include transportation planning and infrastructure management with current projects dealing with risk assessment of transporting hazardous materials along the U.S.-Mexico border and the impact of increased traffic flow on the safety of people and the environment. A technology transfer sub-center for Spanish-speakers is located at CTIS with a large collection of Spanish-language technical reports and training videotapes. For more information visit the CTIS web site at <http://ctis.utep.edu>.

HISPANIC HEALTH DISPARITIES RESEARCH CENTER (HHDR)

The Hispanic Health Disparities Research Center (HHDR) provides leadership to research-based innovations that will reduce Hispanic health disparities. Funded by the National Institutes of Health's National Center on Minority Health and Health Disparities, the HHDR is a collaborative venture between UTEP's College of Health Sciences and School of Nursing and the University of Texas at Houston School of Public Health. The aims of the Center are to (a) build capacity for researchers in health disparities; (b) create a program of excellence to investigate and eliminate Hispanic health disparities in the Texas-Mexico border region; (c) establish the University of Texas System as a leader in Hispanic health disparities; and (d) promote knowledge transfer to both practice and policy.

The mission of the HHDR is guided by a conceptual framework that makes explicit and serves as a catalyst for research on the variables of interest that influence Hispanic health disparities. Activities of the Center include research, research training and education, and community engagement and dissemination. A recently awarded NIH P20 grant funds two full studies, including (1) a population-based assessment of health disparities among Hispanics in El Paso and (2) research focused on cultural and institutional factors affecting adherence to HIV/AIDS treatment in border clinics. In years 3-5 of this grant, new pilot studies based on this research will be funded.

INSTITUTE FOR MANUFACTURING AND MATERIALS MANAGEMENT (IM³)

The Institute for Manufacturing and Materials Management (IM³) serves as both a focal point for UTEP's diverse manufacturing efforts and as a conduit for University resources to area manufacturers. IM³ offers a range of programs and services in the following areas: (1) The Texas Manufacturing Assistance Center (TMAC) provides technical solutions to industrial problems ranging from design-for-manufacturing to supply-chain qualification to pollution prevention; (2) IM³ assists manufacturers in filling both long and short-term workforce development gaps through a number of programs including K-12 and university student outreach programs; industrial arts program development; and student internship programs in regional industry settings; (3) the Institute assists area Economic development agencies by identifying industry sector gaps and facilitating strategic planning; and (4) IM³ provides support for the manufacturing education program funded by the Society of Manufacturing Engineers.

INSTITUTE FOR POLICY AND ECONOMIC DEVELOPMENT (IPED)

The mission of the Institute for Policy and Economic Development (IPED), located at The University of Texas at El Paso, is to provide leadership and coordination in providing objective analysis and interpretation of public and private policy research, to address issues of importance to the people of the Paso del Norte and Camino Real, and to ensure that economic development proceeds in a rational and sustainable fashion. The Institute's interdisciplinary approach to research design, data collection, and analysis provides the Institute's clientele with objective, timely information that forms the framework needed for public policy investigation in areas such as economic development, technology and business development, and trade and transportation. IPED administers three key academic programs (1) the Master of Public Administration; (2) the Master of Leadership Studies, which provides opportunities both for soldiers at Ft. Bliss and for civilians interested in professional and career advancement; and (3) the Intelligence Community Center of Academic Excellence, which was funded by the Office of the Director of National Intelligence to prepare future professionals in the study of national security, intelligence, foreign area studies, language proficiency, geographical expertise, and related competencies.

MATERIALS RESEARCH AND TECHNOLOGY INSTITUTE (MRTI)

The Materials Research and Technology Institute (MRTI) administers the University's multi-disciplinary Ph.D. program in Materials Science and Engineering (MASE); fosters interdisciplinary research across the Colleges of Science, Engineering, Business and Liberal Arts; and supports the Ph.D. programs in Environmental Science and Engineering, Chemistry, and Biology. MRTI also fosters the development of intellectual property by UTEP faculty, staff, and students and helps develop industrial partnerships and new businesses based on UTEP intellectual property. Key MRTI activities include the Department of Energy-funded UTEP/Stanford Gateway Program, which gives UTEP faculty and students access to the Stanford Synchrotron Radiation Laboratory; Mayan Pigments, Inc., which is commercializing complex organic/inorganic materials developed by UTEP researchers; and Refinery Science Corporation, which is working to convert heavy petroleum feed stocks to useful transportation fuels, among other projects.

W.M. KECK CENTER FOR 3D INNOVATION

The W.M. Keck Center for 3D Innovation (Keck Center) is an advanced engineering, manufacturing, and biomedical laboratory focused on multi-disciplinary research. Originally funded through a \$1 million grant from the W.M. Keck Foundation, the newly renovated 6,100-square-foot facility is the only one of its kind in the world. The facilities house more than \$4 million in research infrastructure, including 17 rapid prototyping machines with combined infrastructure for advanced manufacturing, cardiovascular hemodynamics (experimental fluid mechanics), and tissue engineering (including scaffold fabrication, polymer synthesis, and cell culture capabilities). The lab uses rapid prototyping technologies to fabricate functional end-use products and patient-specific anatomical shapes for use in pre-surgical planning, surgery, medical device development, cardiovascular flow research, tissue engineering and more.





Student Services

The University of Texas at El Paso offers a wide array of services for students to ensure that student needs, concerns, and interests are addressed.

Adelante Child Development Center

Phone Number: (915) 747-5270

Website: <https://studentaffairs.utep.edu/childcare>

Child care is available for children of all students, staff, and faculty of the University. The Adelante Child Development Center is located at 1825 Hawthorne and is managed and operated by Adelante Childcare, Inc. Children aged three months to 12 years are accepted, depending on space availability (hourly, daily, weekly care available; Summer Camp for school age children). Age appropriate early childhood developmental programs are offered in the curriculum. The Adelante Child Development Center is licensed by the Texas Department of Protective and Regulatory Services. Financial assistance is available for qualifying parents through Child Care Services.

Campus Cultural Programs

Website: www.utep.edu

Each year departments across campus sponsor hundreds of cultural events including concerts, music theatre productions, plays, art exhibits, ballet and dance performances, films, and lectures.

Theatre and dance productions are performed in the Wise Family Theatre, the Studio Theatre in the Fox Fine Arts Center, and the Magoffin Auditorium. University Dinner Theatre productions are presented in the Student Union West Building. Music activities such as the University's Symphony Orchestra, Symphonic Band, Opera, Jazz Bands, Pandemonium Steel Drums, Choral and Chorus, Jazz Singers, and chamber groups are held in the Fox Fine Arts Center's Recital Hall or the Magoffin Auditorium. Faculty, student, and touring art shows are exhibited in the Stanlee and Gerald Rubin Center for Contemporary Art, the Glass Gallery in the Fox Fine Arts Center, and the Student Union Gallery in the Union East Building. A film series is also presented annually in the Student Union East Building.

Lectures and a variety of other public programs are part of the yearly schedules of all UTEP Colleges, Academic Departments and Centers as well as the University Centennial Museum and Chihuahuan Desert Gardens. The Student Development Center provides a wide-variety of student programming ranging from lectures to artistic performances.

Career Services

Phone Number: (915) 747-5640

Website: www.utep.edu/careers

The Department of Careers Services, as part of the Division of Student Affairs, provides programs and services designed to foster the career development of UTEP students and alumni from all academic disciplines. Toward this end, the Department provides the following services:

- Career Advising
- Resource Center (career development literature, employer information, and on-line resources)
- Career Development Activities and Workshops (resume writing, interviewing, job search correspondence, etc.)
- Resume Reviews
- Job Listings and Referrals (part-time student employment, cooperative education and internship opportunities, and professional employment)
- Cooperative Education/Internship Program (career-related experience for college students)
- On-Campus Interviews
- Career Fairs

Students are encouraged to visit Career Services early in their university career to develop a personalized career-development action plan. Career counseling services are offered by the University Counseling Center.

Disabled Student Services Office (DSSO)

Phone Number: (915) 747-5148 Voice/TTY

Website: www.utep.edu/dsso

The Disabled Student Services Office (DSSO) provides a program of support to students with physical, or mental impairments, as well as those who become temporarily disabled due to an injury or recent surgery, and to women with "at risk" pregnancies.

DSSO provides the following services as accommodations: note taking, sign language interpreters, reader services, priority registration, use of adaptive technology, alternative test formats, testing accommodations and advocacy.

Students requiring accommodations must schedule an intake interview with the Director of DSSO and provide medical and/or diagnostic documentation verifying a disability. The documentation must clearly state symptoms and limitations that adversely affect academic performance. All information provided to DSSO is treated as confidential. Students should be aware that faculty members are not obligated to provide accommodations without proper notification from DSSO.

If a student has, or suspects they have, a disability that is adversely affecting academic performance, he/she should contact the Disabled Student Services Office immediately to discuss available options.

El Paso Centennial Museum/Chihuahuan Desert Gardens

Phone Number: (915) 747-5565

Website: www.utep.edu/museum

The El Paso Centennial Museum was built in 1936 with funds allocated by the Commission for the Texas Centennial Celebration. As the University's museum, it serves students and the El Paso/Juarez communities. The mission of this natural and cultural history museum is to preserve, document, exhibit, and educate about the Southwest and Mexico. Noteworthy collections pertaining to Geology, Anthropology, Archaeology, Paleontology, Ornithology, and Mammalogy include rocks, crystals, minerals, pottery, stone tools, shell

University collections pertaining to Geology, Anthropology, Paleontology, Archaeology, Ornithology, and Mammalogy include tools, artifacts, minerals, pottery, stone tools, shells, jewelry, and baskets. The Chihuahuan Desert Gardens, dedicated in 1999, are located on the west side of the museum. They contain plants of the region in settings that can be adapted for area businesses and homes. Basic museum and special project classes are offered to UTEP students. Temporary exhibits, lectures, gallery talks, youth classes, adult workshops, and volunteer activities are educational offerings. The Museum is free and open to the public.

Food Services

Phone Number: (915) 747-5628

Website: www.admin.utep.edu/sodexho

UTEP Food Services strives to provide the best quality food at the most convenient locations. Students, staff and faculty members are encouraged to visit one of the many food venues located throughout campus.

B-Breakfast available

E-Open during evening hours

UTEP Union East Building 2nd Floor (Food Court)

B Chick-Fil-A (deli)

Firehouse Grill (grill and tortas)

B El Cazo (comida Mexicana),

Garden Gourmet (hand tossed salads, soups, and display cooking featuring international cuisine)

UTEP Union East Building 2nd Floor

Pizza Hut Express (pizza and wings)

E Mine Shaft (pizza, wings, grab and go)

Chopsticks (Asian cuisine)

UTEP Union East Building 1st Floor

B *E* Freshens/Starbucks (Starbucks coffees, smoothies, frozen yogurt, grab and go)

The El Paso Natural Gas Conference Center

E Quiznos (deli)

B Delicious Mexican Express (comida Mexicana)

Mner Grill (grill)

B Pete's Arena (pizza and pasta)

Library

E Jazzman's Café (upscale coffee and pastry shop)

College of Business Administration 3rd Floor

B *E* Miner Stop (grab and go)

College of Education 2nd Floor

B *E* Café a la Cart (grab and go)

College of Health Sciences

B Healthy Corner (grab and go)

Swimming and Fitness Center

E Gold rush (energy stop, smoothies, grab and go)

Academic Services Building

B Jazzman's Café (upscale coffee, sandwiches, salads, and pastries)

Miner Meals are dollars placed on the Miner Gold card that are held in reserve exclusively for food purchases. With Miner Meals, students, faculty, and staff can receive an automatic 10% discount on all food purchases. Miner Meals can be purchased in \$50 increments at Student Business Services, located on the first floor of the Academic Services Building.

UTEP Catering Services offers a full range of services for banquets, receptions, meetings, conferences, and private functions. A dynamic menu is designed to meet the diverse needs of any group and function.

UTEP Concessions provides a variety of tasty options at sporting and special events. From traditional hot dogs to local favorites, your cravings are sure to be satisfied.

Intercollegiate Athletics

Phone Number: (915) 747-5347

Website: www.utepathletics.com

UTEP is an NCAA Division I school and is a member of Conference USA. Sponsored sports are football, men's and women's basketball, men's and women's cross country, men's and women's golf, men's and women's indoor track and field, men's and women's outdoor track and field, women's tennis, women's rifle, women's soccer, women's

softball, and women's volleyball.

Football is played in the 52,247-seat Sun Bowl Stadium, which is located on campus and nestled in the southern tip of the Rocky Mountains; men's and women's basketball plays in the 11,767-seat Don Haskins Center; and women's volleyball plays at Memorial Gymnasium, which seats 3,000 people. Soccer plays at the University Soccer Field with the Rocky Mountains as a backdrop. The track program runs at Kidd Field, which seats 15,000 people. Teams nationally ranked in recent years include men's basketball, football, men's golf, cross country, indoor and outdoor track and field and women's rifle.

International Programs

Phone Number: (915) 747-5664

Website: <https://studentaffairs.utep.edu/oip>

The Office of International Programs (OIP) is the primary source of information and assistance for the international community at UTEP. Services include:

- Advising for international students and scholars, on immigration, financial cross-cultural and personal issues; coordinating and promoting study abroad experiences for students;
- PASE (Programa de Asistencia Estudiantil) program administration: a Texas initiative for a waiver of out-of-state tuition for Mexican nationals who can prove financial need;
- Study abroad advising and program administration, including the UTEP Study Abroad Scholarship, the Fulbright Scholarship, and others;
- International and multicultural activities on campus, highlighting the multicultural nature of El Paso and UTEP through cultural events, and presentations, involving the University's diverse nationalities;
- Administration of the Good Neighbor Scholarship, and the Frank and Polly Ann Morrow Awards for Outstanding International Students.

The Office is located at 203 Union East, and can be contacted at (915) 747-5664 (fax: 915-747-5794), at oip@utep.edu, or at <https://studentaffairs.utep.edu/oip>.

Study Abroad and Exchange Programs

UTEP's study abroad and exchange programs enable students to gain global experience through several types of international study. UTEP offers summer, semester or yearlong exchange opportunities in a great variety of countries. For details, please

refer to the web page: <https://studentaffairs.utep.edu/oip>. Students may participate in several ways:

- UTEP class abroad, led by a UTEP faculty member;
- Exchange program with a partner university; or
- Affiliated international school.

The programs are generally open to all UTEP students, including international, but eligibility requirements vary by program. Most are designed for undergraduate students, but some will accept graduate students. Many require a minimum 3.0 GPA or higher. For programs with courses taught in a foreign language, students need to have either a minimum of two years of college-level study in that language, or the equivalent verbal and writing skills. Some programs in countries where English is not the native language do offer courses in English; for these programs, the language requirement will be waived.

Applications for study abroad are accepted every fall and spring semester for the next academic period. The deadlines are October 1 for spring, and February 15 for summer or fall.

Credit

Students participating in faculty-led or exchange programs are able to receive UTEP credit for the courses taken at the partner university, if approved prior to departure. Depending upon the course(s) chosen and departmental approval, the credit received while abroad may fulfill university core or major degree requirements. If not, the courses will be considered elective credit. Affiliate programs receive only transfer credit.

While abroad, students register for the appropriate class (for faculty-led programs), hours of EXCH courses (for exchange courses), or AFIL (for affiliate programs), and pay tuition to UTEP. Upon return, students receive the UTEP course equivalents for the classes taken abroad, which appear on the student's transcript. Prior approval for the courses taken abroad and their equivalents at UTEP is obtained from the student's major department, the Dean's office, and the Office of International Programs. Important: our partner institutions will not release a student's transcripts if the participant still owes money to them for any reason. Without the transcript, no credit can be given at UTEP.

Exchange Courses (EXCH)

Approved undergraduate study at a foreign university for UTEP credit. Course subjects determined by program selected and course availability. These courses may be repeated for credit. Prerequisite: Approval by Dean of College, Department and Office of International Programs.

5100 Student Exchange Program (1-0)

5200 Student Exchange Program (2-0)

5300 Student Exchange Program (3-0)

5400 Student Exchange Program (4-0)

Costs and Financial Aid

Students participating in faculty-led and exchange programs sponsored by UTEP pay the same or equivalent tuition they would if they were spending the same period on campus. In addition, students are responsible for room and board, personal expenses, books and supplies, travel to the program site, and any miscellaneous expenses. Students participating in affiliate programs must pay the tuition and additional costs as indicated by the institution they have chosen.

In some cases, additional costs of studying abroad can qualify a student for increased financial aid. Most additional aid available for study abroad is in the form of loans. The Financial Aid Office can provide more information on these sources of aid.

In addition to UTEP financial aid, there is a Study Abroad Scholarship. Four dollars of every UTEP student's fees go to support study abroad for UTEP students. The Study Abroad Scholarship is available for any kind of academic program abroad, including short-term summer programs, yearlong exchanges, and independent study or research. Both undergraduate and graduate students are eligible to apply. Scholarship amounts depend upon the cost of the program and the student's financial resources, including aid through UTEP's Financial Aid Office. The awards are based on both merit and financial need. To be eligible for the scholarship, a graduate student must meet the following requirements:

- Have an overall minimum GPA of 3.0
- Have completed at least 18 credit hours at UTEP prior to the Study Abroad Program

KTEP Public Radio

Phone Number: (915) 747-5152

Website: www.ktep.org

KTEP 88.5 FM broadcasts news, information, and cultural programming 24 hours per day for the University as well as El Paso, Southern New Mexico, and Juarez. KTEP is a

KTEP 90.1 broadcasts news, information, and cultural programming 24 hours per day for the University as well as El Paso, Southern New Mexico, and beyond. KTEP is a member of National Public Radio and Public Radio International. The station trains UTEP students in broadcasting, and students can work at the station either as interns or volunteers. KTEP is equipped with the latest in digital broadcast technology. KTEP began broadcasting in 1950 and was the first FM station in El Paso and one of the first in the Southwest. A quarterly programming guide is available by calling (915) 747-5152.

Miner Village

Phone Number: (915) 747-5352

Website: www.utep.edu/housing

While there are several offices and departments on campus that are devoted to student success, there is only one that welcomes students home! Since 2001, the dedicated Housing and Residence Life staff of Miner Village has served the students of UTEP in one of the most modern facilities in the state of Texas. All apartments are fully furnished, with local telephone service, basic cable, refrigerated air, and internet connections. There are laundry facilities, a sand volleyball court, and off-campus restaurants and stores in walking distance.

Whether you are a student-athlete with a busy season ahead, an international student visiting the United States for the first time, or an El Paso native looking for a new experience away from home, Miner Village offers its residents a unique on-campus environment...and the skills needed to be a responsible student, roommate, and citizen.

Professional and Continuing Education (PACE)

Phone Number: (915) 747-5142

Website: www.utep.edu/pace

The role of the PACE is to offer a variety of continuing education and professional development opportunities, along with credit course offerings. Professional and Continuing Education consists of ten major program areas:

1. **Credit Courses** are designed to meet the needs of students at various stages of their careers and education attainment levels. All credit courses are accredited and are transferable to degree programs at UTEP.
2. **Community Programs** offer short courses quarterly for personal and professional enrichment for adults and youth.
3. **Career Development Programs** offer courses that provide individual professional growth.
4. **Business, Manufacturing, and Professional Programs** offer opportunities for individuals of varying levels of experience from both the public and private sectors to develop new skills, meet license or certification renewal requirements, and update knowledge.
5. **Technology Education Programs** provide critical training for a broad range of computer software and user levels to the general public and business community.
6. The **English Language Institute (ELI)** conducts intensive English training on a full-time basis for the TOEFL to enter UTEP.
7. **Faculty and Staff Training and Development** provides training offerings to University employees through the One-Stop Training Shop offered in collaboration with the University's Human Resource Services office.
8. **Summer Athletic Camps:** PACE oversees the athletic camps offered by the various UTEP NCAA Athletic programs.
9. **Advanced Placement Summer Institute** trains area teachers and administrators to prepare students for the AP exam.
10. The **Center for Lifelong Learning (CLL)** is an educational program planned and operated by and for individuals fifty years of age or older. The CLL provides learning opportunities for those eager and willing to learn and take an active role in renewing or expanding their education and enriching their lives.

For more information contact PACE at (915) 747-5142 or visit the office at Miners' Hall, Room 108.

Recreational Sports

Phone Number: (915) 747-5103

Website: www.utep.edu/rsd

The Recreational Sports department provides an opportunity for each member of the University community to voluntarily participate in a wide variety of sports and leisure activities.

- **Intramural Sports Program** offers approximately 40 activities for men and women with a valid UTEP ID
- **Outdoor Adventure Program** offers equipment rental and outdoor trips to UTEP students, staff and faculty
- **Challenge Course** is a half day or full day team development program
- **Fitness Programs** are non-credit exercise classes offered to UTEP students, staff and faculty at a minimal fee
- **Sports Clubs** are available for registered UTEP students who may want to participate in extramural competition
- **Open Recreation** provides the use of sport facilities for leisure play. Equipment is provided with a valid UTEP ID
- **Swimming and Fitness Center** consists of an exercise room with cardio machines, weight machines, free weights and two swimming pools.

For further information visit the Recreational Sports website or call Memorial Gym at (915) 747-5103 or the Swimming and Fitness Center at (915) 747-8100.

Special Events

Phone Number: (915) 747-5481

Website: www.utep.edu/events

There is no business like show business! For over a decade the Office of Special Events has been dedicated to bringing quality entertainment to the UTEP and El Paso communities.

The office operates as a full production house in the booking of the following UTEP special event facilities: Sun Bowl Stadium, Don Haskins Center, and Magoffin Auditorium. A variety of events are presented each year. Past events include *Juanes*, *Aerosmith*, *Linkin Park*, *Fleetwood Mac*, *Cher*, *Shakira*, *The Eagles*, *Ricky Martin*, *NSYNC*, *The Rolling Stones*, *HBO's Oscar de la Hoya Fight*, *WWE*, and international soccer *Pumas vs. Tigres* among many, many others.

The Office of Special Events is also responsible for the programming of the Wednesday Music Caf  FREE Concert Series, the Union Exhibition Gallery and the Art and Foreign Film series, host of the Cinema Novo Film Society of El Paso, the only art film society in the city.

Student Development Center

Phone Number: (915) 747-5670

Website: <https://studentaffairs.utep.edu/sdc>

The Student Development Center (SDC) is a one-stop clearinghouse of information and resources for UTEP students involved, or who want to become involved, in campus life. The SDC provides students with opportunities to get involved in leadership activities, campus activities, health awareness, diversity initiatives, student organizations and/or Greek

The SDC provides students with opportunities to get involved in leadership activities, campus activities, health awareness, university initiatives, student organizations and/or Greek Life.

The Student Development Center works with over 180 student organizations on campus. These organizations are categorized as follows: Academic/Professional, Advocacy, Graduate, Greek, Governing, Honorary, International, Professional, Recreational, Religious/Spiritual, Service, Special Interest, Social, and School/Community Spirit. The SDC provides a variety of programs to enhance student organizations through personal consultations, publications and workshops. Please visit the SDC website for more information on how to start an organization and view helpful links for student organizations.

Student Government Association

Phone Number: (915) 747-5584

Website: <https://studentaffairs.utep.edu/sga>

The Student Government Association (SGA) is the official voice of the student body. The SGA maintains an open channel of communication between the student(s) and university administration by voicing to the University administration the concerns of the student body and informing students about changes in policy that will affect campus life and student activities. SGA's goal is to make every student's college experience a complete one – developing them both academically and personally.

SGA takes pride in the diversity of the student body and is dedicated to providing assistance to and support for all student organizations and campus activities whenever possible. Recognizing the campus' unique diversity, SGA works to assure that every student or group of students is treated with respect and dignity in order to maintain an atmosphere of tolerance and understanding among all members of the campus community.

Student Health Center

Phone Number: (915) 747-5624

Website: www.utep.edu/dsso

The Student Health Center (SHC) is located directly across from the Library and offers confidential health care services to all University students presenting a valid UTEP ID. FREE services include: office visits, nutritional counseling and HIV/AIDS testing (which is done every Wednesday from 11:00 a.m. - noon). Laboratory tests, pap smears, vaccinations and many other services are provided at reduced rates.

Referrals outside the Student Health Center for stitches, x-rays, specialists, etc. are at the student's own expense. All emergencies are referred to local hospitals. Minor illness, injury or health concerns are treated by the SHC's professional staff.

Student insurance is available and recommended for every student without insurance coverage. Information on student health insurance may be obtained by calling: (888) 344-6105.

Student Publications

Phone Number: (915) 747-5161

Website: www.utep.edu/studentpublications

Student Publications offers motivated students the opportunity to gain hands-on, professional experience in a variety of facets of publishing through *The Prospector*, a semi-weekly student newspaper, and *Mnero Magazine*, a bilingual, bicultural publication produced once each fall and spring semester.

Students who work within the department receive training to become reporters, photographers, graphic designers, editors or advertising sales representatives in a professional environment using the latest computer-based publishing technology. Students must maintain a GPA of at least 2.0 and be enrolled for at least 9 undergraduate hours or 6 graduate level hours.

To ensure freedom of expression, a Student Publications Committee, composed of UTEP faculty, staff and students, oversees the student-produced publications. Student Publications' mission is to produce talented, ethical and well-qualified journalists, photographers, designers and advertising professionals through experiential training that will lead them to successfully pursue and thrive in their chosen careers.

Student Support Services Program (SSSP)

Phone Number: (915) 747-5349/8602

Website: <https://studentaffairs.utep.edu/sssp>

This federally funded TRIO program provides intensive academic and personal support for first-generation, economically disadvantaged students with academic need from their freshman year through graduation. First year participants are enrolled in learning communities for two semesters to help them adjust to the demands of college. Students meeting the above criteria may apply to the program in Room 300 of the UTEP Library.

Union

Phone Number: (915) 747-5711

Website: www.utep.edu/union

The Union Building is the community center for the University of Texas at El Paso. Its primary goal is to provide services and facilities for the university community in support of the academic and student development mission of the University.

As the "epicenter" of the campus, the Union Building not only serves as a gathering place but also provides an atmosphere that fosters the exchange of ideas representing the diverse backgrounds of members of the university community.

The Union Services office is located in the Union Building, Room 307.

University Bookstore

Phone Number: (915) 747-5594

Website: www.utepbookstore.com

The University Bookstore, located on the first floor of the Union East Building, is responsible for having required academic textbooks and supplies for students. The Bookstore also provides the University community a large variety of reference books, school and office supplies, computer software and accessories, calculators, UTEP apparel and gift items, commencement apparel and invitations, magazines, book buybacks, special book and software orders, specialty plaques, and computer hardware orders. The University Bookstore is managed and operated by Follett Higher Education Group.

University Counseling Center

Phone Number: (915) 747-5302

Website: www.utep.edu/counsel

The University Counseling Center provides free and confidential services in Spanish and English to currently enrolled UTEP students. Services include career counseling to help students clarify their academic or career goals and overcome obstacles to learning and decision making. The Center also provides personal counseling to address issues that can affect a student's ability to perform optimally in his or her academic and professional endeavors. Lastly, the University Counseling Center provides educational workshops, outreach programs, and self-help resources on everything from stress and time management to self-esteem and relationship issues. Hours of operations are 8:00 a.m. – 5:00 p.m., Monday through Friday with extended hours (open until 7:00 p.m.) during the fall and spring semesters on Mondays and Tuesdays.

Women's Resource Center

Phone Number: (915) 747-5291

Website: <https://studentaffairs.utep.edu/wrc>

The Women's Resource Center (WRC) empowers women to achieve their holistic (personal, academic, professional and spiritual) goals, promote social justice through education programs, support groups, and a safe environment to foster health and wholeness in all people. The WRC provides students with a library of books, magazines, videotapes, and health-related brochures as well as access to a computer lab. There is also a microwave, refrigerator, and telephone designated for student use. The WRC's knowledgeable staff offers community resource information and networking opportunities. These services are available to women and men who identify as allies, including staff, faculty, and families.

The WRC is a welcoming space for Lesbian, Gay, Transgender, Queer and Intersex (LGBTQI) community members. It is committed to promoting an environment free from hatred and discrimination based on sexual orientation, gender identity, or gender expression. The WRC empowers everyone to be authentic and share their experiences. Students will find understanding and acceptance here.



COLLEGES AND DEGREE PROGRAMS

- [College of Business Administration](#)
- [College of Education](#)
- [College of Engineering](#)
- [College of Health Sciences](#)
- [College of Liberal Arts](#)
- [College of Science](#)
- [School of Nursing](#)
- [Interdisciplinary Programs](#)





COLLEGE OF BUSINESS ADMINISTRATION

- [College of Business Administration](#)
- [Accounting](#)
- [Economics and Finance](#)
- [Information and Decision Sciences](#)
- [Marketing and Management](#)





College of Business Administration

The College of Business Administration offers qualified scholars contemporary graduate programs design to broaden and strengthen their understanding of the conventional academic disciplines of management education. Our graduate programs integrate innovative instructional methods with experienced-based learning to enable our graduates to succeed in a competitive, global marketplace. Our quality is reflected in the success of our students, alumni, and faculty, and in the enhancement of the personal and professional lives of community residents. At the heart of our programs is a distinguished faculty dedicated to teaching, research, and community service. The College is committed to providing a quality management education to a highly motivated, diverse student body framed in the region's unique socio-economic environment.

Enrollment in Graduate Courses in the College of Business Administration for Non-Business Graduate Students

Any graduate student who has not been admitted to one of the graduate degree programs must have written permission from the Graduate Advisor in the College of Business Administration in order to enroll in graduate courses offered by the College.

Doctor of Philosophy in International Business

The College of Business Administration, through the departments of Accounting, Economics and Finance, Information and Decision Sciences, and Marketing and Management, offers a Ph.D. Degree in International Business. The Ph.D. degree program is accredited by AACSB International-The Association to Advance Collegiate Schools of Business and is only one of about 25 such programs worldwide. The Ph.D. program in International Business will prepare a new generation of faculty, from diverse backgrounds, to meet critical challenges projected in business education across the State of Texas, in Mexico, and elsewhere. The objective of the Ph.D. program is to give students the opportunity to prepare for academic careers in colleges of business or institutions that use business techniques and policies in management and administration. The program meets this objective by providing students with strong theoretical knowledge and state of the art methodological skills. Course work is divided between theory driven, substantive courses and advanced methods courses.

Requirements for Admission to the Ph.D. Program

1. Transcripts according to the requirements of the Graduate School.
2. Official scores on the GMAT or GRE (GMAT preferred).
3. Two letters of reference, preferably from professors who are knowledgeable about the student's ability to perform at the doctoral level.
4. A statement describing the applicant's reasons for wanting to obtain a Ph.D. in International Business.
5. For international students, official scores for the TOEFL. International applicants are required to have a score of at least 250/600 on the TOEFL.
6. As part of the review of an applicant's file, an interview or additional information may be required. In such a case, the applicant will be notified.
7. Students wishing to enter the Ph.D. program directly upon completion of a bachelor's degree are expected to have completed at least 24 upper-division undergraduate semester credit hours in business administration.

Admission decisions are based on demonstration of academic performance and potential as measured by undergraduate GPA, graduate GPA (if applicable), standardized test scores, and other such indicators. Admissions decisions may also reflect consideration of candidates' socio-economic background, publication record, and academic experience.

Specific Requirements for the Ph.D. Degree

| | |
|---------------------------------|--------------------------|
| Business Foundation | 24 semester hours |
| International Business | 15 semester hours |
| Quantitative and Survey Methods | 12 semester hours |
| Other Elective Graduate Course | 9 semester hours |
| Summer Research Requirement | 6 semester hours |
| Dissertation | <u>6 semester hours</u> |
| Total | 72 semester hours |

Business Foundation Courses (24 semester hours)

| | | |
|------|------|--|
| ACCT | 5311 | Accounting for Management |
| CIS | 5313 | Strategic Information Systems |
| ECON | 5311 | Managerial Economics |
| ECON | 5360 | Global Economic Environment for Managers |
| FIN | 5311 | Financial Management |
| MGMT | 5325 | Management Strategy and Policy |
| MKT | 5311 | Marketing Management |
| SCM | 5308 | Concepts of Production Management |

Equivalent undergraduate courses may be substituted at the discretion of the College Ph.D. committee.

Students entering the Ph.D. program with a bachelor's degree are expected to have knowledge of elementary calculus and statistics. Entering students must take the business foundation courses or demonstrate competency in the knowledge areas represented. It is anticipated that students entering the program with an MBA will have already taken these courses or their equivalent. Students can demonstrate achievement of proficiency in any or all of these areas by examination, subject to the approval of the Director of the Ph.D. Program.

Required Doctoral Courses

International Business Core Courses (15 semester hours)

Five core courses in International Business (each of which is a 3 credit hour course) must be taken by all doctoral students. Unless otherwise scheduled these must be successfully completed within the first year of full time enrollment.

- IBUS 6301 Research Methodology
- IBUS 6305 Doctoral Seminar in Applied International Business Research
- IBUS 6311 Seminar in International Trade and Business Policy
- IBUS 6313 Seminar in International Marketing
- IBUS 6319 Seminar in International Business

Quantitative and Survey Methods Courses (12 semester hours)

Each student must complete twelve semester hours in the area of quantitative and research methods. Each student must complete the following applied research courses or their equivalent:

- IBUS 6302 Applied Multivariate Methods
- IBUS 6303 Advanced Regression Analysis
- IBUS 6306 Multivariate Statistics/Applied Regression Analysis
- IBUS 6307 Survey Research

Subject to approval by the Ph.D. Program Director, one of the four quantitative methods courses may be selected from appropriate alternative courses.

Elective Courses (9 semester hours)

Each student must complete nine semester hours of graduate-level College of Business Administration courses with approval of the Director of the Ph.D. Program and the Graduate School. Elective courses may be selected from the list below.

- IBUS 6312 Seminar in International Financial Management and Monetary Economics
- IBUS 6314 Seminar in International Management and Strategy
- IBUS 6315 Seminar in International Accounting and Taxation
- IBUS 6316 Seminar in International Production Operations and Supply Chain Management
- IBUS 6317 Seminar in International Global Information
- IBUS 6318 International Entrepreneurship
- IBUS 6322 International Organization Behavior and Human Resource Management
- IBUS 6330 Special Topics in International Business
- IBUS 6389 Independent Study (with approval of Program Director)

Summer Research Requirement Courses (6 semester hours)

Each student must complete six semester hours in the area of summer research. IBUS 6305 or a similar designated course will be taken during each summer session.

Grade Point Average Requirements

The student must maintain at least a 3.00 grade point average over the five International Business Core courses. The student must also achieve a grade of at least a "B" in each of the courses. Students must maintain a 3.00 GPA over all graduate work attempted, excluding dissertation credit. Failure to maintain these averages constitutes unsatisfactory progress and will result in the student's dismissal from the program.

Comprehensive Exams (0 semester hours)

After completing their coursework but prior to beginning their dissertation proposal each student must pass a series of comprehensive examinations. The Director of the Ph.D. Program will schedule the exams in consultation with the College of Business Administration's Ph.D. committee.

Dissertation Courses (6 semester hours)

All students must complete a doctoral dissertation (a minimum of 6 semester hours) that presents original research at an advanced level on a significant problem in international business. Dissertation hours may be repeated as needed:

- IBUS 6398 Dissertation I
- IBUS 6399 Dissertation II

Other Requirements

In addition to all College of Business Administration requirements falling under this heading, please review the International Business Ph.D. Student Policy Handbook for more detailed information applying to all International Business doctoral students.

Typical Program of Study

The following represents the typical program of study for doctoral students majoring in International Business. Although exceptions to this suggested program can be expected, a majority of students' programs of study will closely match this calendar of events.

Year 1

Fall

IBUS 6306 Multivariate Statistics/Applied Regression Analysis

IBUS 6313 Seminar in International Marketing

IBUS 6319 Seminar in International Business

Spring

IBUS 6301 Research Methodology

IBUS 6302 Applied Multivariate Methods

IBUS 6311 Seminar in International Trade and Business Policy

Summer (Summer Research Project)

IBUS 6305 Doctoral Seminar in Applied International Business Research

Year 2

Fall

IBUS 6303 Advanced Regression Analysis

IBUS 6314 Seminar in International Management and Strategy

IBUS 6322 International Organization Behavior and Human Resource Management

Spring

IBUS 6307 Survey Research

IBUS 6315 Seminar in International Accounting and Taxation

IBUS 6318 International Entrepreneurship

Summer (Summer Research Project)

IBUS 6305 Doctoral Seminar in Applied International Business Research

Statistics Qualifying Examination

International Business Qualifying Examination (if needed)

Years 3 and 4

Prepare and defend dissertation proposal (minimum of 9 dissertation hours per semester)

Completion of Dissertation

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

For Doctoral Students Only

International Business (IBUS)

6301 Research Methodology (3-0)

This course covers applications of statistical techniques and analysis of business and economic research related to problem specification, modeling and measuring phenomena, sampling and experimental design, testing of hypothesis, and use of non-parametric tools. The purpose of the course is to introduce students to the quantitative methods necessary to understand the current literature in international business and economics. *Prerequisite:* Department approval.

6302 Applied Methods I (3-0)

This course is an extensive review of quantitative methods used in international business and economic research which focuses on theoretical foundations of research design, methodology, and analysis as well as interpretation of univariate, bivariate, and multivariate data in business theory. *Prerequisite:* Department approval.

6303 Advanced Regression Analysis (3-0)

This course is a study of linear and nonlinear regression methodologies, elementary time series analysis, and other introductory econometric topics. The course is designed to provide basic expertise in the application of econometric topics. The course is designed to provide basic expertise in the application of econometric techniques to hypothesis testing, model building, diagnostic testing, and simulations analysis. *Prerequisites:* IBUS 6301 with a grade of "B" or better and department approval.

6304 Business Time Series Analysis (3-0)

This course is a survey of univariate time series, single equation, and multi-equation systems approaches to applied econometric forecasting analysis. Topics to be covered include autoregressive-moving average (ARIMA) modeling, model identification, estimation, diagnostic checking and out-of-sample simulation. Applications will be drawn from Latin American business conditions, exchange rate, inflation, natural income, and balance of payments forecasting methods. *Prerequisites:* IBUS 6301 with a grade of "B" or better and department approval.

6305 Doctoral Seminar in Applied International Business Research (3-0)

In this course students research interdisciplinary international business problems and economics issues specific to border regions. *Prerequisite:* Department approval.

6306 Multivariate Statistics and Applied Regression Analysis (3-0)

This course provides coverage of a number of procedures developed for regression problems in business. Emphasis is on model building, validation and subsequent inferences; analysis of real data using major statistical software packages; examining and transforming data, linear least-square regressions, statistical inference for regressions, dummy variable, influential data, co-linearity and variable selection, generalized least squares, assessing sampling variations and factor analysis. *Prerequisites:* QMB 2301 (or equivalents) with a grade of "B" or better and department approval.

6307 Survey Research Methods (3-0)

This course teaches students how to plan, design, and execute international business surveys. Students will learn about cross-national problems associated with questionnaire development, item analysis, scale development, including reliability and convergent and discriminant validity. The course will also examine qualitative methods such as content analysis, event history analysis, and observation. *Prerequisite:* Department approval.

6311 Seminar in International Trade and Business Policy (3-0)

This course involves the study of the theory of trade, trade policy and trade agreements designed to eliminate tariff and non-tariff barriers to international business commerce. Topics include comparative advantage, specific factors of production and income distribution, economies of scale, imperfect competition, international trade, international factor movements, and trade policy. *Prerequisite:* Department approval.

6312 Seminar in International Financial Management and Monetary Economics (3-0)

This course is an in-depth study of foreign exchange risk management as it relates to the protection of future investment decisions, the cost of capital, and the firm's financial structure, capital flows, balance of payment issues, exchange rate determination, and open economy macroeconomic issues. Topics include balance of payments, exchange rates and the foreign exchange market, price levels and the exchange rate, output and the exchange rate, fixed exchange rates, and floating exchange rates. *Prerequisite:* Department approval.

6313 Seminar in International Marketing (3-0)

This course focuses on the types of marketing decisions facing the international marketing manager in the multi-national firm. It examines international marketing in terms of exporting and importing as well as other modes of entry. Considerable emphasis is placed upon differences among markets because of geography, politics, economics, culture, commercial policy, legal matters, and trade practices. Areas of investigation include global management of the marketing mix and border/regional issues. *Prerequisite:* Department approval.

6314 Seminar in International Management and Strategy (3-0)

This course is a study of the global competitive and economic factors that shape the environment in which firms operate. The distinctive nature of the business environment in developing countries, and the managerial implications of same, will be highlighted. Topics include multi-national and global strategy, organizing international operations, international technology transfer, international human resource management, and evaluation of international operations. *Prerequisite:* Department approval.

6315 Seminar in International Accounting and Taxation (3-0)

This course is a study of comparative internal accounting systems, accounting practices, problems of multi-national enterprises, and the institutions and environments that affect them. Topics include transfer pricing, accounting for the effects of inflation, international accounting standards, foreign currency hedging, accounting for foreign subsidiaries, integrated tax systems, indirect taxes and minimization of global taxes. *Prerequisite:* Department approval.

6316 Seminar in International Production Operations and Supply Chain Management (3-0)

This course focuses on the issues related to the efficient and effective management of supply and material functions in an international context. The course primarily analyzes the management of materials and the control of materials costs in international businesses and institutional enterprises. *Prerequisite:* Department approval.

6317 Seminar in International Global Information (3-0)

This course addresses global information technology from the perspective of national governments, economic regions, multi-national corporations, corporation and consumers. The cross-cultural nature of information technology will be studied in terms of the impact of information flow on people in different cultures, the differences in information sought and used by people of different cultures, and the mechanisms for developing information systems to be developed and/or used by people of different cultures. *Prerequisite:* Department approval.

6318 International Entrepreneurship (3-0)

This course examines the creation, management and growth of independent firms that have intent of engaging in International commerce. The requirements of firms called "born-global" or "multinational start-ups" include the development of a business model, location pre-venture capital, building a venture team; identifying market-entry and exit strategies, and preparing for growth. The course also examines international small businesses with an emphasis on how they differ from large international firms. *Prerequisite:* Department approval.

6319 Seminar in International Business (3-0)

Seminar in International Business offers a survey of contemporary international business research in a seminar format. Topics include the international business environment, entry mode choice, organizational theories of multinational enterprise, strategic alliances and networks, export strategies and international business in and from emerging economies. *Prerequisite:* Department approval.

6322 International Organizational Behavior and Human Resource Management (3-0)

Emphasis is on mastery of classic and contemporary literature in international organizational behavior and human resource management. Both U.S. and international theories and research perspectives will be used to guide students in building their own research agendas. *Prerequisites:* MGMT 5311 or equivalent and IBUS 6301 each with a grade of "B" or better and department approval.

6330 Topics in International Business (3-0)

Selected Topics in International Business may be taken up to three times with approval of the doctoral program director. Content of the course will vary with instructor. Course topics might include theories of: Emerging Markets and International Business, International Entry Mode Choice, Seminar in Importing/Exporting, International Product Strategy, Regional Trade Agreements and MNC behavior, etc. *Prerequisite:* Department approval.

6389 Independent Study: International Business (0-0-3)

Independent study in International Business may be taken up to three times with approval of the doctoral program director. Content of the course will vary with the professor directing the independent study. *Prerequisite:* Department approval.

6398 Dissertation I (0-0-3)

This course represents the development of original research at the frontier of knowledge to demonstrate excellence in the field. After successfully defending the dissertation proposal, students must register for 6398 when work on the dissertation is begun. Thereafter, students must register for 6399 during the semesters in which work on the dissertation is being accomplished. *Prerequisite:* Department approval.

6399 Dissertation II (0-0-3)

This course represents the development of original research at the frontier of knowledge to demonstrate excellence in the field. After successfully defending the dissertation proposal, students must register for 6398 when work on the dissertation is begun. Thereafter, students must register for 6399 during the semesters in which work on the dissertation is being accomplished. *Prerequisite:* Department approval.

Requirements for Admission into Master's Degree Programs in Business Administration

[Students should refer to the Economics and Finance Department section for admission requirements for the Master of Science in Economics.]

The College of Business Administration requires that all documents listed below be submitted prior to admission to any master's degree program in the College.

1. Transcripts according to the requirements of the Graduate School.
2. Official scores on the GMAT or GRE (GMAT preferred). Applicants who have completed a master's degree may not be required to submit test scores.
3. A statement, not to exceed one page, which may include a description of the applicant's professional experience, educational background, career goals and/or socio-economic background.
4. For international students, official scores for the TOEFL. International applicants are required to have a score of at least 250/600 on the TOEFL.

Admissions decisions are based on demonstration of academic performance and potential as measured by undergraduate GPA, standardized test scores, and other such indicators. Admissions decisions may also reflect consideration of candidates' socio-economic background, professional experience, and commitment to the program.

Non-Program Limited Enrollment in Graduate Courses

An individual who has completed an undergraduate degree at an AACSB International (or equivalent) accredited college or university with a minimum GPA of 3.00 (on a 4.0 scale) and who has the respective course prerequisites may enroll in graduate courses for a particular purpose such as, for example, completion of additional credit hours in order to qualify for professional certification in some field, or to obtain advanced knowledge in an area related to the individual's job responsibilities. A maximum of six non-transferable credit hours of graduate courses may be taken under this rule. Persons desiring to enroll in additional courses must apply for and be accepted into a graduate Master's degree program in the College of Business Administration before enrollment will be permitted.

College Academic Standards

Students whose GPA's fall below 3.0 is normally placed on probation by the Graduate School. However, MBA students who would be unable to achieve a GPA of 3.0 during the probationary period will be immediately dismissed.

Master of Business Administration (MBA)

The College of Business Administration, through the departments of Accounting, Economics and Finance, Information and Decision Sciences, and Marketing and Management, offers a Master of Business Administration degree. The MBA degree program is accredited by AACSB International—the Association to Advance Collegiate Schools of Business. The objective of the MBA program is to give students the opportunity to prepare for executive careers in business or in institutions that use business techniques and policies in management and administration. The program meets this objective by being broad in nature and aimed at general competence in overall management and administration. The majority of the course work is devoted to a broad understanding of the environment, controls, and practices, which are common to most institutions. Nine hours of additional coursework allow graduate students to concentration in specific academic areas of interest.

Specific Requirements for the Master of Business Administration Degree

1. All students must complete 48 credit hours of **Course of Study for the Master of Business Administration (MBA)** which includes the 39 hours of the Required Graduate Core plus 9 credit hours of the chosen MBA concentration course work. Courses in the Required MBA Core may be substituted for other graduate courses in the same academic discipline if the MBA student has shown an appropriate understanding of the subject matter in previous undergraduate or graduate coursework.
2. Students earning a "B" or better in MGMT 5325 or MGMT 5335 will satisfy the comprehensive exam requirement. Students who earn a "C" will be required to pass a comprehensive exam.
3. No more than three hours in any concentration can be undergraduate courses available for graduate credit.

Program of Study for the Master of Business Administration (MBA) (48 semester hours)

1. **Required MBA Core** (39 semester hours)

ACCT 5301 Financial Accounting
ACCT 5311 Accounting for Management
CIS 5313 Strategic Information Systems
ECON 5311 Managerial Economics
ECON 5360 Global Economic Environment for Managers
FIN 5311 Financial Management
MGMT 5311 Organizational Management Seminar
BLAW 5306 Business Law and Ethics
MGMT 5336 Effective Management of Human Resources
MKT 5311 Marketing Management
SCM 5308 Concepts of Production Management*
QMB 5311 Quantitative Methods in Business*
MGMT 5325 Management Strategy and Policy Taken in final semester)

2. **MBA Concentrations** (12 semester hours)

Complete **three** of the following:

a. Accounting

ACCT 4305 Not-For-Profit Accounting
ACCT 4321 Advanced Cost Accounting
ACCT 4325 International Accounting
ACCT 5312 Controllership
ACCT 5315 Taxation and Management Decisions
ACCT 5324 Computer Applications in Accounting and Auditing
ACCT 5391 Seminar in Managerial Accounting

b. Computer Information Systems

Complete **three** of the following:

CIS 5340 Electronic Commerce in Business
CIS 5350 Systems Analysis and Design
CIS 5360 Business Intelligence and Security Informatics
CIS 5365 Database Management
CIS 5370 Data Communications and Computer Networks
CIS 5380 Information Systems for Managers
CIS 5394 Current Issues in CIS

c. Economics

Complete **three** of the following:

ECON 5312 The Economic Environment
ECON 5320 Monetary and Fiscal Policy and Problems
ECON 5350 Industrial Organization and Policy
ECON 5365 Economic Development
ECON 5366 Latin American Economics
ECON 5370 Advanced Quantitative Methods in Economics

d. Finance

Complete **three** of the following:

FIN 5301 Theory of Financial Management
FIN 5315 Securities Analysis
FIN 5316 Derivative Instruments
FIN 5318 Capital Formation, Analysis and Budgeting
FIN 5325 International Financial Management
FIN 5370 Financial Modeling

e. General Management

Complete **three** of the following:

MGMT 4306 Franchising
MGMT 4325 International Management
MGMT 5335 International Management
MGMT 5345 Global Management
MGMT 5314 Corporate Entrepreneurship

MGMT 5346 Total Quality Management

f. Health Systems

Complete **three** of the following:

NURS 5300 Organizational Theory and Culture

NURS 5335 Management Roles and Operations

NURS 5337 Health Care Financial Management

NURS 5338 Health Law, Policy and Ethics

NURS 5357 Perspectives on Border Health (requires School of Nursing approval)

NURS 5365 Managing Health Care Outcomes

NURS 5366 Managing Diverse Work Teams

h. Supply Chain Management

SCM 5311 Inventory and Materials Management

SCM 5325 Global Operations and Supply Chain Management

And **one** of the following:

SCM 5330 Management of Service Operations

CIS 5340 Electronic Commerce in Business

SCM 5394 Current Issues in Supply Chain Management

MGMT 5346 Total Quality Management

Master of Business Administration and Master of Public Administration: Two-Degree Option (MBA/MPA)

Students may also enroll in a two-degree option MBA/MPA program. The objective of this program is to permit students with broad interest in both the public and private sectors to double register in both the MBA and MPA programs. With the increasing interdependence of the public and private sectors, this option is attractive to those students wishing to pursue careers in positions responsible for working with their counterparts in private or public organizations. In order to be admitted into the two-degree option, the applicant must specify the option *at the time of application to the Graduate School*. Students who wish to enter the MBA/MPA program should consult with the Graduate Advisor for the College of Business Administration and with the Director of the MPA program with regard to admission, required courses, approved electives, and petition for candidacy.

The program consists of 61 hours of graduate study, of which 30 hours are in areas of Business Administration and 31 hours are in areas of Public Administration.

Specific Requirements for the MBA/MPA Two-Degree Option

1. Students must meet all requirements for admission to both programs.
2. Students must meet the Pre-MBA requirements for the MBA degree. Students should refer to the description for the MBA degree program and the conditions for waiver.
3. The program consists of 24 semester hours of required MBA core courses, 24 semester hours of core MPA courses, 6 hours of graduate business electives, 3 hours of PAD 5367, plus any additional required courses. The number of hours necessary to complete the two-degree option will vary depending upon each student's background and previous academic work.
4. The core curriculum in each of the separate degree programs must be satisfactorily completed.
5. Electives must be approved by the academic advisors of both programs; upon such approval, the core courses of one program may be used to meet the elective requirements of the other.
6. Admission to and continuance in the program are administered separately by the MBA and MPA graduate committees and by the Graduate School.

MBA Plus Program

Students with MBA degrees may enroll as post-baccalaureate students and complete 12 semester hours in a concentration area. Students will receive MBA PLUS certificates upon completion of the concentration area courses that include:

Accounting

Computer Information Systems

Economics

Finance

Health Systems

Human Resource Management

International Business

Marketing Management

Production and Materials Management

Additional information is available from the MBA Graduate Advisor in the College of Business Administration at (915) 747-7726.



Accounting

260 Business Administration Building
(915) 747-5192
cobacct@utep.edu

INTERIM CHAIRPERSON: Raymond Zimmerman
PROFESSOR EMERITUS: Gary J. Mann
ASSOCIATE PROFESSOR EMERITUS: Walter G. Austin, Jr.
GRADUATE FACULTY: Braun, Eason, S. Glandon, T. Glandon, Howell, Huerta, Mayne, Putnam, Salter, Zimmermann

The Department of Accounting, University of Texas at El Paso shares with the University its fundamental mission to provide the highest quality education to citizens of El Paso and the West Texas Region, commensurate with AACSB International standards for business and accounting accreditation.

The objectives of the Master of Accountancy (MAcc) program are to: provide students with the necessary background for placement into, and advancement in, the public accounting profession; enhance the skills necessary for success in the public accounting profession; explore issues relevant to the professional accounting environment; and provide the educational requirements necessary to sit for the Uniform CPA Examination in the State of Texas.

All students wishing to study for a MAcc degree must meet the Pre-Master of Accountancy (Pre-MAcc) requirements and complete thirty credit hours of Course of Study for the Master of Accountancy (MAcc). The MAcc program consists of a three-hour business core, an eighteen-hour accounting option, a three-hour communications requirement, and six-hours of approved graduate business electives. The MAcc has a specialization in the financial/auditing area as well as in taxation.

Accounting (ACCT) courses and Business Law (BLAW) courses are included under the Accounting course section.

Master of Accountancy Program (MAcc)

The MAcc program consists of a three-hour business core, an eighteen hour accounting option, a three-hour communications requirement, and six-hours of approved graduate business electives.

Requirements for Admission to the Master of Accountancy Program

Students should refer to the Introduction to the College of Business Administration section for information on admission.

Specific Requirements for the Master of Accountancy Degree

All students must meet the **Pre-Master of Accountancy (Pre-MAcc) Requirements** and complete thirty-three credit hours of **Course of Study for the Master of Accountancy (MAcc)**.

Courses in **Pre-MAcc Requirements**, as described below, **may be waived** if, according to the Accounting Graduate Studies Committee, the student has the equivalent courses in previous undergraduate or graduate course work or the appropriate work experience. Waivers may also be given if the student can demonstrate proficiency through challenge examinations approved by the Committee.

Students earning a "B" or better in MGMT 5325 or MGMT 5335 will satisfy the comprehensive exam requirement. Students who earn a "C" will be required to pass a comprehensive exam.

Pre-Master of Accountancy (Pre-MAcc) Requirements

Common Body of Knowledge (18 semester hours)

(The courses in parentheses indicate the equivalent undergraduate course or course combinations.)

- 3 ACCT 5301 or Financial Accounting
(ACCT 2301, 2302)
- 3 ECON 5304 or Business Economics
(ECON 2303, 2304)
- 3 QMB 5311 or Quantitative Methods in Business
(QMB 2301, 3301
and MATH 2301)
- 3 BLAW 5306 (3301) Business Law and Ethics
- 3 (MKT 3300) (Principles of Marketing)
- 3 FIN 5305 (3310) Financial Concepts and Analysis

Professional Core (18 semester hours)

- 3 ACCT 3320 Accounting Systems
- 3 ACCT 3321 Intermediate Accounting I
- 3 ACCT 3322 Intermediate Accounting II
- 3 ACCT 3323 Cost Accounting
- 3 ACCT 3327 Federal Income Tax-Individuals

Course of Study for the Master of Accountancy (MAcc) (30 semester hours)

1. Business Core Requirements (3 semester hours)

3 - MGMT 5325 or MGMT 5335 (Taken last semester)

2. Accounting Major Requirements (18 semester hours)

a. Tax Concentration

6 - ACCT 5328*, 5322

9 - Choose three from ACCT 5320, 5321, 5325, 5326

3 - Choose one approved non-tax graduate accounting elective, excluding ACCT 5311 and ACCT 5335.

b. Financial/Auditing Concentration

9 - Choose three from ACCT 5302*, 5310, 5323, 5324

9 - Choose three approved graduate accounting electives. May choose either ACCT 5311 OR ACCT 5335, but not both.

A minimum of 12 of the 18 hours in the area of concentration must be accounting courses available exclusively for graduate credit.

3. Communications Requirement (3 semester hours)

3 - COMM 5362, ENGL 5311, ENGL 5312, ENGL 5314, or ENGL 5315

4. Approved Graduate Business Electives (6 semester hours)

6 - Choose two approved graduate business electives

Students planning to sit for the Certified Public Accountant examination in Texas must choose ACCT 5329 as one of the business electives.

ACCT 5397 (Professional Report in Accounting) if selected, must be written in the area of concentration.

Up to nine hours of approved cross-listed courses may be counted in the Master of Accountancy degree plan. Those cross-listed courses required as part of the Accounting Major Option Requirements are counted in these limitations.

For Graduate Students Only

Accounting (ACCT)

5301 Financial Accounting (3-0)

An introductory study of accounting procedures involved in recording transactions producing income statements and interpreting financial data prepared primarily for external users. This course examines the theory and practices related to recording assets, liabilities, owners' equities, revenues and expenses in accordance with current accounting theory. May be counted only as a Pre-MAcc or a Pre-MBA course in the graduate degree programs offered by the College of Business Administration. *Prerequisite:* Admission to a graduate program.

5302 Advanced Accounting I (3-0)

A study of special problems of partnership accounting, business combinations, consolidated financial statements, accounting from foreign operations, and other timely topics as appropriate. (ACCT 5302 is cross-listed as ACCT 4301. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, ACCT 5302 requires additional coursework to be determined by the instructor.) *Prerequisite:* ACCT 3322.

5305 Not-for-Profit Accounting (3-0)

An examination of the accounting and reporting procedures of governmental and other not-for-profit organizations, including state and local governments, universities, hospitals, and others. (ACCT 5305 is cross-listed as ACCT 4305. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, ACCT 5305 requires additional coursework to be determined by the instructor.) *Prerequisite:* ACCT 3322.

5310 Contemporary Accounting Issues (3-0)

Development of accounting theory; controversial issues involved in the measurement and reporting of enterprise periodic income. Study of authoritative pronouncements. *Prerequisite:* ACCT 3322.

5311 Accounting for Management (3-0)

A study of accounting as related to making business decisions. Readings, cases, and problems dealing with accounting concepts, budgeting and cost control, use of accounting data in planning operations and policy formulation, and tax planning in business policies. Does not count as part of the Master of Accountancy degree. *Prerequisites:* ACCT 5301, or ACCT 2301 and ACCT 2302 each with a grade of "B" or better.

5312 Controllership (3-0)

A study of the major phases of controllership practice, including organizational status, objectives, functions, duties, responsibilities and the managerial utilization of accounting and statistical data for planning and control. *Prerequisite:* ACCT 5311 with a grade of "B" or better.

5313 Advanced Cost Accounting (3-0)

5313 Advanced Cost Accounting (3-0)

Advanced studies in cost management systems, capacity utilization, performance measurement, capital budgeting, transfer pricing, quantitative techniques, and other selected topics as appropriate. (ACCT 5313 is cross-listed as ACCT 4321. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, ACCT 5313 requires additional coursework to be determined by the instructor.) *Prerequisites:* ACCT 3323 with a grade of "C" or better or ACCT 3314 with a grade of "B" or better.

5315 Taxation and Management Decision (3-0)

A conceptual overview of the tax systems in the United States with an emphasis on tax planning and decision-making. May not be counted toward the Master of Accountancy.

5320 Taxation of Partners, Partnerships and S Corporations (3-0)

The intensive study of federal income tax principles applicable to the formation, operation, sale and liquidation of partnerships. Special attention will be paid to the issues of distributions, basis and tax minimization opportunities. *Prerequisite:* ACCT 3327 or equivalent with a grade of "C" or better.

5321 Advanced Topics in Federal Taxation (3-0)

Topics will vary depending on current developments, e.g., taxation of foreign persons and multinational operations, consolidated tax returns, state and local taxation, pension plans, charitable organizations, and tax reform proposals. *Prerequisite:* ACCT 3327 or equivalent.

5322 Tax Concepts, Research and Procedure (3-0)

An in-depth study of tax issue identification, the location and analysis of tax authority, and the written communication of conclusions based upon the relevant authority. Includes coverage of tax procedure. *Prerequisite:* ACCT 3327 or equivalent.

5323 Advanced Auditing (3-0)

A study of the important concepts of auditing including the nature of audit evidence, auditor independence, audit reports, the environment of auditing, and relevant current issues. *Prerequisite:* ACCT 4304.

5324 Computer Applications in Accounting and Auditing (3-0)

Design and control of computerized accounting; use of computers in accounting and their applications to the auditing functions; stress is placed on E.D.P. control; internal auditing considerations. *Prerequisites:* ACCT 3320 and ACCT 4304.

5325 Estate and Gift Taxation (3-0)

A comprehensive survey of principles involved in determining the federal estate tax and federal gift tax including the taxability and valuation of property and analysis of deductions, including the federal marital deduction. *Prerequisite:* ACCT 3327 or equivalent.

5326 Advanced Corporate Taxation (3-0)

Reorganizations, net operating losses, and other advanced areas in the field of corporate taxation. *Prerequisite:* ACCT 4328.

5328 Federal Income Tax-Partnerships and Corporations (3-0)

A study of the Internal Revenue Code and Regulations pertaining to partnerships and corporations, federal taxation of international-related transactions, gift and estate taxes, and federal income taxation of fiduciaries; including preparation of related tax returns. (ACCT 5328 is cross-listed as ACCT 4328. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, ACCT 5328 requires additional coursework to be determined by the instructor.) *Prerequisite:* ACCT 3327 with a grade of "C" or better.

5329 Ethics in Accounting (3-0)

A study of ethics in the accounting profession. Emphasis is placed on the theories of ethics and their applications; the Texas State Board of Accountancy's rules of ethics; the AICPA's Code of Professional Conduct; implications of the Sarbanes-Oxley Act; and ethical conditions required by the Securities Exchange Commission. Course is restricted to accounting majors. (ACCT 5329 is cross-listed as ACCT 3329. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, ACCT 5329 requires additional coursework to be determined by the instructor.) *Prerequisite:* ACCT 3321 with a grade of "C" or better.

5335 International Accounting (3-0)

A study of comparative international accounting systems, accounting practices, and problems of multi-national enterprises, and the institutions and environments that affect them. (ACCT 5335 is cross-listed as ACCT 4325. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, ACCT 5335 requires additional coursework to be determined by the instructor.) *Prerequisite:* ACCT 3314 with a grade of "B" or better, or ACCT 3321 with a grade of "C" or better.

5391 Seminar in Managerial Accounting (3-0)

Advanced topics in managerial accounting. Topics will vary to reflect current literature. *Prerequisite:* ACCT 3314, ACCT 3323, or ACCT 5311.

5392 Directed Individual Study in Accounting (0-0-3)

This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the master's degree. *Prerequisite:* Department approval.

5194 Current Issues in Accounting (1-0)**5294 Current Issues in Accounting (2-0)****5394 Current Issues in Accounting (3-0)**

A course organized to investigate special topics and current issues in accounting. May be repeated for credit when content varies. *Prerequisite:* Department approval.

5396 Internship in Accounting (0-0-3)

A practicum in accounting under the supervision of accounting practitioners. This course may count as a business elective or a free elective but not as an accounting elective in the accounting degrees. The internship must be completed prior to the last full semester of accounting coursework. *Prerequisites:* Completion of 6 hours of the Common Body of Knowledge courses and 6 hours of the Professional Core, which must include ACCT 3321; a minimum accounting GPA of 3.0; a minimum business GPA of 3.0; and department approval.

5397 Professional Report in Accounting (0-0-3)

In-depth research study into a current accounting or tax issue that culminates in a written report and formal presentation to faculty. Requires the supervision of a committee comprised of a minimum of three graduate faculty members. The professional report must be written within the selected area of concentration for the degree. The student must register for the course each semester until the professional report is completed and a grade of A, B, C, D or F is assigned; however, a maximum of 3 credit hours may be counted towards the degree. *Prerequisites:* Completion of 18 hours of Master of Accountancy program coursework for the area of concentration selected and department approval.

Business Law (BLAW)

5306 Business Law and Ethics (3-0)

A broad-based course covering an introductory study of the legal environment of business and of social and ethical considerations affecting business. May be counted only as a Pre-MAcc or a Pre-MBA course in the graduate degree programs offered by the college of Business Administration except the combined BBAMAcc program. BLAW 3301 or BLAW 5306, but not both, may be counted toward degrees awarded in the College of Business Administration. *Prerequisite:* Admission to a graduate program in business.

5325 International Business Law (3-0)

Legal environments in which international business operates; litigation and arbitration of international disputes; transfer of capital and technology regulations; impact of antitrust and taxation laws on international business transactions; legal structure and powers of overseas business organizations; patent, trademarks, and copyright aspects of international business transactions. (BLAW 5325 is cross-listed as BLAW 4325. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, BLAW 5325 requires additional coursework to be determined by the instructor.) *Prerequisite:* BLAW 3301 with a grade of "D" or better.

5391 Business Law (3-0)

A study of the Uniform Commercial Code and the study of legal principles of agency, partnerships, and corporations, including security regulations. (BLAW 5391 is cross-listed as BLAQ 4391. However, in accordance with the catalog requirements for undergraduate courses taken for graduate credit, BLAW 5391 requires additional coursework to be determined by the instructor.) *Prerequisite:* BLAW 3301 with a grade of "D" or better, or BLAW 5306 with a grade of "C" or better.





Economics and Finance

236 Business Administration Building
(915) 747-5245
econfin@utep.edu

CHAIRPERSON: Timothy P. Roth

GRADUATE FACULTY: Ashby, Devos, Elliott, Fullerton, Holcomb, Johnson, Roth, Schauer, Smith, Sprinkle, Varela, Wei, Xie

Master of Science Degree in Economics (MS)

The Department of Economics and Finance offers a Master of Science degree in economics with the opportunity for specialization in areas within economics and for course work in areas outside economics. Some suggested areas for specialization within economics are regulation, international economics, applied business economics, and border economics. Some suggested areas for the minor or for interdisciplinary work are border studies, finance, and computer information. All proposed degree plans must be approved by the Graduate Advisor and the Graduate School.

Thesis and non-thesis programs are available. Students enrolled in the thesis program must take 24 hours of course work in addition to completion of the thesis for which six hours of credit are given. The non-thesis option requires a total of 36 hours of course work.

The ability to take course work in areas outside economics is available either through completion of a minor, with as many as 12 hours and a minimum of 6, or through the interdisciplinary program. The interdisciplinary program is a 36-hour program with a minimum of 18 hours in economics.

Requirements for Admission to the MS Degree in Economics

Students should see the Introduction to the College of Business Administration. However, in addition to the requirements listed in the Introduction, students should complete the following courses or their equivalents:

[The course in parentheses indicates the equivalent undergraduate course.]

ECON 5304 (2303, 2304) Business Economics

ECON 5312 (3302) The Economic Environment

ECON 5311 (3303) Managerial Economics

QMB 5311 (QMB 3201, QMB 3301, and MATH 2301) Quantitative Methods

Course of Study for the MS in Economics

All candidates must complete the following courses:

ECON 5302 Microeconomic Theory

ECON 5303 Macroeconomic Theory

ECON 5305 Applied Mathematical Economics

ECON 5370 Advanced Quantitative Methods in Economics

And one of the following options:

1. **Thirty-hour Thesis Option** (18 semester hours)

12 - Graduate course hours in Economics or an approved minor.

6 - ECON 5398 - Thesis and ECON 5399 - Thesis

2. **Thirty-six hour Non-Thesis Option** (24 semester hours)

24 - Graduate course hours in Economics

or

12 graduate course hours in Economics plus 12 hours in an approved minor.

3. **Interdisciplinary Option** (24 semester hours)

18 - Graduate course hours in an approved minor

6 - ECON 5398 and ECON 5399

The Department of Economics and Finance also participates in the Master of Business Administration and the Master of Accountancy degrees, the requirements for which are found under the College of Business Administration and Accounting sections in this catalog.

For Undergraduate and Graduate Students

Economics (ECON)

3334 Regional Economics

3335 Urban Economics

4330 Public Sector Economics

4340 Economics of Labor

4368 **Economy of Mexico**

Finance (FN)

4311 **Commercial Bank Management (3-0)**

4312 **Current Issues in Banking (3-0)**

4316 **Speculative Markets (3-0)**

4318 **Financial Statement Analysis (3-0)**

4328 **Central Banking (3-0)**

For Graduate Students Only

Economics (ECON)

General Prerequisite: All graduate courses listed below require twelve hours of economics or departmental approval.

5301 **Research Methodology (3-0)**

Concentrated study of data gathering methods, research design and analytical and statistical techniques used in economics research. The purpose of the course is to master the quantitative methods necessary to understand current literature in economics. *Prerequisites:* ECON 3302 and ECON 3303, or ECON 5311 and ECON 5312.

5302 **Microeconomic Theory (3-0)**

The determination of prices and output. The theory of markets ranging from perfect competition through monopolistic competition and oligopoly to monopoly. The theory of the firm and the industry. Welfare implications of price determination. *Prerequisite:* ECON 3303 or ECON 5311.

5303 **Macroeconomic Theory (3-0)**

The analysis of the determination of total income in the economy and related problems. Strong emphasis is given the theory of income determination, studies in the demand and supply of money, and the relationship between government policy and economic activity. *Prerequisites:* (1) ECON 3302 or (2) ECON 5312 and MATH 2301 or (3) the equivalent.

5304 **Business Economics (3-0)**

An intensive, in-depth study of economics with emphasis upon the theory of the static profit maximizing firm and upon the effects of the economic environment upon the firm. May be counted only as Pre-MAcc or Pre-MBA courses in the graduate degree programs offered by the College of Business Administration. *Prerequisite:* Admission to a graduate program in business.

5305 **Applied Mathematical Economics (3-0)**

A problem oriented survey of the mathematical techniques utilized in economics, finance, and public policy analysis. Topics to be covered include matrix algebra, optimization problems, comparative statics, dynamics, and game theory. The purpose of the course is to introduce students to the quantitative methods necessary to understand the current literature in economics and finance. *Prerequisite:* MATH 2301, MATH 1411, QMB 5311, ECON 3372, or department approval.

5311 **Managerial Economics (3-0)**

An evaluative study of the theory of economic decision-making in individual firms, groups of firms, and industries under market conditions ranging from competition to monopoly. (Students in the MS program in Economics may not count this course for graduate credit.) *Prerequisite:* ECON 2304 or ECON 5304.

5320 **Monetary and Fiscal Policies and Problems (3-0)**

An analysis and critique of monetary and fiscal policies and problems designed to facilitate economic stability and economic progress. Emphasis is given development and application of techniques used for analysis of economic activity, in-depth studies of stabilization policies and their effects, and analysis of problems inherent in the economic system. *Prerequisite:* ECON 3302 or 5312 with a grade of "C" or better or department approval.

5334 **Urban Economics (3-0)**

This course provides an overview of urban and regional economics. Spatial theory, growth patterns, and business cycle impacts on metropolitan development provide the basic framework from which the various topics are to be covered. Additional topics receiving coverage will include urban real estate markets, labor mobility, transportation, growth, public policy analysis, taxation, development, and regional income performance. *Prerequisite:* ECON 5305 with a grade of "C" or better or instructor approval.

5350 **Industrial Organization and Policy (3-0)**

Selected topics in structure, conduct, regulation of business and public policy toward business. *Prerequisite:* ECON 3303 or ECON 5311 each with a grade of "C" or better.

5360 **Global Economic Environment for Managers (3-0)**

Economic principles of the flow of goods, services, and capital funds across international borders. Analysis of existing national and international economic institutions influencing international trade and capital flow. *Prerequisites:* ECON 2303, ECON 2304, or ECON 5304, and department approval.

5361 Applied International Economics (3-0)

An applications oriented survey of international trade and balance of payment issues, exchange rate modeling and analysis, and regional agreements designed to eliminate tariff and nontariff barriers to international commerce in the Americas. *Prerequisites:* Graduate standing and department approval.

5365 Economic Development (3-0)

A critical analysis of policies designed to achieve economic growth in less developed countries. Topics include monetary and fiscal measures, development of human resources, capital formation, investment allocation, introduction of new technologies and coordination of domestic policies with the international economy. *Prerequisite:* ECON 3302 or ECON 5312.

5366 Latin American Economics (3-0)

A study of the existing economic institutions in Latin America. Application of economic principles to Latin American economic problems and policy. The emphasis is institutional rather than analytical. *Prerequisite:* ECON 3302, ECON 5312, or department approval.

5367 Country Risk Analysis (3-0)

The application of national income and product account statements, international balance of payment statements, and external indebtedness calculations to international business decisions is studied. Advanced economic and financial ratio analysis utilization in loan repayment likelihood estimation is also developed. *Prerequisite:* ECON 2303, or ECON 5304, or instructor approval.

5368 Border Economics (3-0)

This course provides an introduction to the field of international border economics with special emphasis on issues and topics dealing with the border zone between Mexico and the United States. Coverage will include border crossings, exchange rates, international migration, water economics, regional economic trends, relative economic performance measures, and applied econometric analysis. Econometric techniques to be utilized include cross section, system of simultaneous equations, and time series methodologies. *Prerequisites:* ECON 5303 with a grade of "C" or better or instructor approval.

5370 Applied Econometrics (3-0)

Linear and nonlinear regression methodologies, elementary time series analysis, and other introductory econometric topics will be treated. The course is designed to provide basic expertise in the application of econometric techniques to hypothesis testing, model building, diagnostic testing, and simulation analysis. *Prerequisite:* ECON 5305.

5371 Econometric Forecasting (3-0)

A survey of univariate time series, single equation, and multi-equation systems approaches to applied econometric forecasting analysis. Topics to be covered include autoregressive-moving storage (ARIMA) modeling, model identification, estimation, diagnostic checking and out-of-sample simulation. Applications will be drawn from Latin American business conditions, exchange rate, inflation, national income, and balance of payments forecasting methods. *Prerequisites:* ECON 5370 and department approval.

5392 Directed Individual Study in Economics (0-0-3)

This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the master's degree. *Prerequisite:* Instructor approval or Graduate Advisor approval.

5398 Thesis (0-0-3)

Initial work on the thesis. *Prerequisite:* Graduate Advisor approval.

5399 Thesis (0-0-3)

Continuous course enrollment required while work on the thesis continues. *Prerequisites:* ECON 5398 and Graduate Advisor approval.

Finance (FN)

5305 Financial Concepts and Analysis (3-0)

An intensive, in-depth study of finance with emphasis on the managerial implications of financial concepts. May be counted only as Pre-MAcc or Pre-MBA courses in the graduate degree programs offered by the College of Business Administration. *Prerequisites:* Admission to a graduate program in business and ACCT 5301.

5311 Financial Management (3-0)

A study of the financial manager in executive decision making, involving financial planning and analysis in the allocation of the financial resources of a firm; investment decision-making, capital budgeting, and financial problems of growth. *Prerequisite:* FIN 3310, FIN 5305, or department approval.

5315 Securities Analysis (3-0)

An in-depth study of the techniques of market and security analysis. Special emphasis is placed on the development of portfolio theory, application of the theory to real-world situations, and the evaluation of portfolio management. *Prerequisite:* FIN 4310, FIN 5311, or department approval.

5316 Risk Management and Derivative Markets (3-0)

A study of the nature, functions, and applications of the various futures and options markets and contracts. Basis, long and short term hedging, spreading, normal and inverted markets are examined, along with theoretical considerations. *Prerequisite:* FIN 4310 or FIN 5311, with a grade of "C" or better or department approval.

5318 Capital Formation, Analysis, and Budgeting (3-0)

This course is designed to provide an in-depth study of the cost of capital and arguments concerning the appropriate specification of capital costs; analysis of the capitalization package of the firm; study of cash flows as they relate to the investment decision; risk analysis in the capital budgeting process and a study of techniques of capital budgeting under various constraints. *Prerequisite:* FIN 4310, FIN 5311, or department approval.

5322 International Financial Markets and Institutions (3-0)

An in-depth study of the markets and institutions that influence the flow of goods and services among nations, exchange rate determination, and international monetary problems. Subject matter may vary at the discretion of the instructor. *Prerequisite:* FIN 4310, FIN 5311, or department approval.

5325 International Financial Management (3-0)

An in-depth study of foreign exchange risk management as it relates to the protection of future investment decisions, the cost of capital, and the firm's financial structure. Subject matter may vary at the discretion of the instructor. *Prerequisite:* FIN 4310, FIN 5311, or department approval.

5370 Financial Modeling (3-0)

Study of classical and contemporary financial models. Emphasis on examining theoretical foundations, testing and modification of existing models, and inferences they provide for decision-making. Among topics covered are simulation models of financial processes of the firm, modeling and testing securities market behavior, risk management strategies, valuations, and sensitivity analysis of financial decisions. *Prerequisites:* FIN 4310 or FIN 5311 or department approval.

5392 Directed Individual Study in Finance (0-0-3)

This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the master's degree. *Prerequisites:* Instructor approval and Graduate Advisor approval.

5394 Current Issues in Finance (3-0)

A course organized to investigate special topics and current issues in finance. May be repeated for credit when content varies. *Prerequisite:* Department approval.



Information and Decision Sciences

205 Business Administration Building
(915) 747-5496
cobids@utep.edu

CHAIRPERSON: Leo A Gemoets
PROFESSOR EMERITUS: Edward Y. George
GRADUATE FACULTY: Bagchi, Gemoets, Hall, Joseph, Kirs, Mahmood, Mukhopadhyay, Ruiz-Torres, Udo

The Information and Decision Sciences Department participates in the Master of Business Administration, the Master of Accountancy, and the Master of Science in Economics degrees. The requirements of these degrees are found under the College of Business Administration, Accounting, and Finance and Economics sections in this catalog.

The following courses are included under the Information and Decision Sciences department section: Computer Information Systems (CIS) courses, Production/Operations Management (POM) courses, and Quantitative Methods (QMB) courses.

For Undergraduate and Graduate Students

Operations and Supply Chain Management (OSCM)

3333 Production Planning and Control

4371 Transportation and Warehousing Systems

For Graduate Students Only

Computer Information Systems (CIS)

5311 Management Information Systems Theory and Practice (3-0)

A broad study of Management Information Systems, Decision Support Systems, and Expert Systems. MIS will be studied in-depth from the standpoint of structures, technology, and requirements. Problems and issues related to the design, implementation and management of MIS will be covered.

5313 Strategic Information Systems (3-0)

This course is concerned with how general managers can apply information technology (IT) to increase strategic advantage and organizational effectiveness. The objective of the course is to develop students' ability to identify information systems that can increase organizational competitiveness and to recognize the major threats to these desired outcomes. Successful application of IT to business problems and opportunities will also be reviewed.

5317 Information Resource Policy and Management (3-0)

A study of the information systems management function with particular emphasis on planning, organizing, and controlling information resources including MIS personnel. Coverage of various methodologies for assessing and evaluating the MS function. Also covered are various strategies and procedures for managing MS development.
Prerequisite: CIS 5311.

5340 Electronic Commerce in Business (3-0)

The course will provide students with a well-defined set of business perspectives and good technical background in the electronic commerce (e-commerce) area. The course will also cover international, legal, ethical, and tax issues in the e-commerce area. The students will gain hands-on experience in designing, developing, deploying, and operating e-commerce dynamic Web sites using appropriate Web application construction software.

5350 Systems Analysis and Design (3-0)

Students are introduced to the principles and techniques of systems analysis and design methods with particular emphasis on information systems. The conceptual architecture of an information system, information systems framework and conceptual building blocks are introduced. The systems modeling, design and implementation, two major elements of information systems analysis, are discussed in the context of life-cycle phases. The concept and techniques of information systems models, such as data model, process model, and network model are discussed in depth. An appreciation of multidisciplinary approach needed for systems analysis and management will be gained through an understanding of information systems project management techniques, tools, and skills required for a successful completion of an information systems analysis and design project. *Prerequisite:* CIS 5311 with a grade of "B" or better or CIS 3350 with a grade of "C" or better.

5360 Business Intelligence and Security Informatics (3-0)

This course introduces the fascinating topics of business intelligence and security informatics (BISI). Students will acquire knowledge and skills about the technical and managerial issues of BISI. The technical issues include various approaches to preventing and fighting security breaches and their application to real-world situations. The managerial issues include security audit, government policy, business impact of cybercrime, and management strategy. Upon completion of this course, students will be better prepared and equipped to understand and to manage security issues in networked organizations. *Prerequisite:* CIS 5311 with a grade of "B" or better or CIS 3350 with a grade of "C" or better.

5365 Database and Data Management (3-0)

An essential component of all business applications of information technology is an underlying core of data that provide the foundation for the information system. This course is designed to teach fundamental skills in the collection, dissemination, and management of data. This course presents the full gamut of data management material, ranging from high level, conceptual views, through intermediate, formal modeling techniques, to hands-on usage of a current large-scale (Oracle) and microcomputer database management system, Microsoft Access. The course utilizes hands-on project work, but emphasizes managerial concerns such as ethics, societal impact, privacy, design, organizational impact, and strategic implication of data management. Students will thus gain both immediate useful skills, as well as exposure to longer-lived theory and concepts that will provide them with a solid knowledge base upon which to continue to upgrade their technical skills as technology implementations change in the future.

5370 Data Communication and Computer Networks (3-0)

The course introduces students to data communication and computer network fundamentals and IS security basics. The course has a managerial approach to evaluating and selecting data communications and computer network technologies. Other topics covered include hardware and software for networks, various types of networks (LAN, MAN, WAN, VPN, wireless etc.), internetworking and Internet, network management and telecommunications. The course also covers network security and strategic use of such systems.

5380 Information Systems for Managers (3-0)

Information Systems for Managers is an internet-based course which examines the impacts, issues, advantages, and disadvantages of technology in Organizations, Education, Government, Society, Culture, Wireless environments, Computer Forensics and Security, and the Future. The course has a strong managerial perspective in order to prepare students for careers in IT. Coverage includes the analysis, design, implementation, and integration of systems in specific environments and the close examination of real-world technological phenomenon.

5392 Directed Individual Study in CIS (0-0-3)

This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the Master's degree. *Prerequisite:* Department approval.

5394 Current Issues in CIS (3-0)

A course organized to investigate special topics and current issues in Computer Information Systems. May be repeated for credit when content varies. *Prerequisite:* Department approval.

5397 Professional Report in Computer Information Systems (3-0)

May be taken only once for credit. Continuous enrollment required while work on the professional report continues. *Prerequisite:* Department approval.

Operations and Supply Chain Management (OSCM)

5308 Concepts of Production Management (3-0)

The production or operations function is concerned with the planning and decision-making activities of managers directly responsible for the conversion of resources into products and services. The operations manager plans production, schedules work and controls inventories. This course is a study of the issues underlying the management of operations, and introduces the student to a variety of tools and techniques used by operations managers exploring alternative means of implementing decisions. *Prerequisites:* QMB 2301 and MATH 2301 each with a grade of "C" or better.

5311 Inventory and Materials Management (3-0)

This course addresses the issues and approaches associated with managing the inventory and flow of raw materials, work-in-process, finished goods, and supplies to ensure/enhance the organization's competitiveness and profitability. Topics will include outsourcing and make-or-buy decisions, international/global sourcing, and computer-based inventory/materials systems, as well as the formulation and application of quantitative models for inventory analysis and decision-making. The concepts, principles, and strategic impact of some of the more significant approaches in production/inventory planning and control, such as just in time systems, material requirements, planning, and enterprise resource planning, will be discussed. *Prerequisites:* OSCM5308 and QMB 5311 or equivalents, each with a grade of "C" or better.

5325 Global Operations and Supply Chain Management (3-0)

This course is designed to present and discuss concepts, issues and problems critical to global operations, with some emphasis on those that pertain to the operation and improvement of global supply chains. Innovations in global operations management and technology, as well as the opportunities and challenges posed by such innovations, will be investigated. Coverage will include successful approaches in the areas of product design, quality management, and project management, among others, that have led to dramatic improvements in global business performance. Important recent developments and approaches for the effective and efficient operation of global supply chains will be identified and discussed. *Prerequisites:* OSCM5308, QMB 5311, MKT 5311, and CIS 5311 or equivalents, each with a grade of "C" or better.

5330 Management of Service Operations (3-0)

The major concepts of service, the design and implementation of service systems, the operational issues, and the tools for managing a service operation are covered to provide understanding of the broader role of service at both the service and goods firms. *Service strategies, service quality, and other emerging service issues* are discussed. Special attention will be given to service operations in maquiladora environment. *Prerequisite:* OSCM5308 or equivalent with a grade of "C" or better.

5392 Directed Individual Study in Production/Operations Management (0-0-3)

This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the master's degree.

5394 Current Issues in Production/Operations Management (3-0)

A course organized to investigate special topics and current issues in production/operations management. *Prerequisite:* OSCM5308 with a grade of "C" or better.

Quantitative Methods (QMB)

5311 Quantitative Methods in Business (3-0)

Basic mathematical techniques employed in the solution of management problems, including probability theory and tests of hypotheses. May be counted only as Pre-MAcc or Pre-MBA courses in the graduate degree programs offered by the College of Business Administration. *Prerequisite:* Department approval.





Marketing and Management

230 Business Administration Building
(915) 747-5185
mandm@utep.edu

CHAIRPERSON: John Hadjimarcou

GRADUATE FACULTY: Brouthers, Garcia, Hadjimarcou, Hoy, Ibarreche, Mendoza, Marsh, Michie, O'Connor, O'Donnell, Posthuma

The Department of Marketing and Management participates in the Master of Business Administration and the Master of Accountancy degrees. The requirements of these degrees are found under the College of Business Administration, Accounting, and Finance and Economics sections in this catalog.

For Undergraduate and Graduate Students

Management (MGMT)

4304 Human Resource Training and Development

4306 Franchising

4315 Human Resource Staffing and Planning

4325 International Management

4337 Compensation and Benefits

Marketing (MKT)

4305 Selling and Sales Management

4308 Real Estate Principles

4310 Principles of Retailing

4325 International Marketing

4390 Business to Business Marketing

4391 Services Marketing

For Graduate Students Only

Management (MGMT)

5311 Organizational Management Seminar (3-0)

An experiential study of management processes and problems associated with the social system of organizations including individual and group behavior, behavior among groups, and behavior of organizations in an international context interacting with external and internal environments.

5314 Corporate Entrepreneurship (3-0)

Corporate entrepreneurship is the process of creating new ventures and generating innovation within existing organizations. This course examines organizational culture characteristics that facilitate or inhibit corporate venturing. Emphasis is placed on the process by which new venture opportunities are identified, launched and managed. The course focuses on the behaviors of venture team members associated with success. *Prerequisite:* MGMT 5311.

5325 Management Strategy and Policy (3-0)

A seminar devoted to an investigation, analysis, and discussion of American business problems, trends, policies, and major issues. To be taken in the last semester. *Prerequisite:* Department approval.

5335 International Strategic Management (3-0)

A study of the global competitive and economic factors that shape the environment in which firms operate. The distinctive nature of the business environment in developing countries, and the managerial implications of that, will be highlighted. *Prerequisites:* Department approval and to be taken in the last semester; fulfills the requirements for MGMT 5325.

5336 Effective Management of Human Resources (3-0)

A study of methods to effectively utilize and manage human resources in a rapidly changing business environment. Topics covered include planning, staffing, appraising,

compensating, training, career management, improving the work environment, and establishing and maintaining effective work relationships. *Prerequisite:* MGMT 5311 or department approval.

5345 Global Management (3-0)

This course seeks to provide students with a synthesis of knowledge about globalization and organizational life. Additionally, it deals with the manner in which organizations orient themselves in order to respond to issues that stem from differing cultural logics. *Prerequisite:* MGMT 5311.

5346 Total Quality Management (3-0)

Analysis of the philosophy of total quality, world class, and productivity management theories. Students will be exposed to "real world" practitioners and problems to build a perspective on problems faced by businesses, of all sizes and forms, in light of global competition. *Prerequisites:* QMB 5311 and (1) MGMT 5311 or (2) department approval.

5392 Directed Individual Study in Management (0-0-3)

This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the master's degree. *Prerequisite:* Department approval.

5394 Current Issues in Management (3-0)

A course organized to investigate special topics and current issues in management. May be repeated for credit when topic varies. *Prerequisite:* MGMT 5311 or department approval.

5397 Professional Report in Management (0-0-3)

May be taken only once for credit. *Prerequisite:* Department approval.

Marketing (MKT)

5311 Marketing Management (3-0)

Analysis of policy formulation by marketing management with special emphasis on the influence of internal and external environment factors that affect the competitive strategies of a marketing firm.

5355 International Marketing (3-0)

This course focuses on the types of marketing decisions facing the international marketing manager in the multinational firm. It examines international marketing in terms of exporting and importing as well as other modes of entry. Considerable emphasis is placed upon differences among markets because of geography, politics, economics, culture, commercial policy, legal matters and trade practices. Areas of investigation include global marketing of the marketing mix and border/regional issues. Restricted to majors: ACCT, BSAD, and ECON. *Prerequisite:* MKT 5311.

5392 Directed Individual Study in Marketing (0-0-3)

This course may be repeated, but no more than three semester credit hours may be applied to satisfy the requirements for the master's degree. *Prerequisite:* Department approval.

5394 Current Issues in Marketing (3-0)

A course organized to investigate special topics and current issues in marketing. May be repeated for credit when content varies. Restricted to majors: ACCT, BSAD, and ECON. *Prerequisite:* MKT 5311 or department approval.

5397 Professional Report in Marketing (0-0-3)

May be taken only once for credit. Continuous enrollment required while work on the professional report continues. *Prerequisite:* Department approval.



COLLEGE OF EDUCATION

- [College of Education](#)
- [Educational Leadership and Foundations](#)
- [Educational Psychology and Special Services](#)
- [Teacher Education](#)





College of Education

The College of Education has as its mission the preparation of education professionals and the investigation of problems and opportunities associated with schools and other youth-serving agencies, especially those in multicultural communities. Graduate programs in Education are based on established educational research and essential knowledge of sound professional practice. All programs in the College are approved by the Texas Higher Education Coordinating Board.

Graduate degree programs offered by the College of Education include a Master of Arts degree in Education and the Master of Education degree. The Master of Education degree option is a non-thesis program that offers students an opportunity to gain an increased depth and breadth in education through graduate level coursework, a scholarly paper, and a comprehensive exam. The Master of Arts option (A thesis-based degree) is designed for students interested in performing an independent research project in addition to coursework. Students may major in Education, Educational Administration, Educational Diagnostician, Guidance and Counseling, Special Education, Instructional Specialist, and Reading. Students should see the Graduate Advisor in the appropriate department. Graduate courses are offered through three departments: Educational Leadership and Foundations, Educational Psychology and Special Services, and Teacher Education. In addition to the aforementioned graduate programs, the Doctor of Education in Educational Leadership and Foundations is offered which gives students the opportunity for doctoral study.

It is also possible for students to take post-baccalaureate coursework leading to certification by the State Board for Educator Certification as Professional School Supervisor, Professional Principal, Professional School Superintendent, all-levels Reading Specialist, and Master Reading Teacher, Master Mathematics Teacher, Master Science Teacher, and Master Technology Teacher. Professional certification for classroom teachers can also be earned.

In addition, the College of Education, in partnership with local area school districts, offers an Alternative Teacher Certification Program. In this program, candidates teach full-time in an elementary or secondary public school and complete summer and evening course work toward initial (provisional) teacher certification in Texas. Certification in Career and Technology Education is also available. For more information, contact the Alternative Teacher Certification Program Office, Education 801. For students separately admitted to the Master of Education degree, some course work may apply toward the graduate degrees in Teacher Education or Educational Psychology. For more information, students should contact the Director of Alternative Teacher Certification, Education 801, or the Director of Career and Technology Education, Education 601, and the Graduate Advisors in the Teacher Education and Educational Psychology Departments.

Individuals seeking information about teacher certification in Texas should contact the College of Education Advising, Recruitment, and Career (ARC) Center, Education 412.

Master of Arts in Education

The Master of Arts degree with a major in Education is designed for students who wish to pursue research and who wish to continue studies beyond the master's degree level. Students may pursue the MA in Education in any of three academic departments in Education:

- Educational Leadership and Foundations
- Educational Psychology and Special Services
- Teacher Education

Admission Requirements

- At least 12 semester hours of upper-division course work in Professional Education.
- A satisfactory undergraduate grade point average (GPA).
- International students whose first language is not English must score 213 (550 paper based) or higher on the TOEFL (Test of English as a Foreign Language).

Plan of Study

Applicants must additionally submit an acceptable plan of study to the Graduate Advisor, representing the Graduate Studies Committee of the selected department. The plan must be submitted and approved by the academic department and by the Graduate School during the student's first term of enrollment.

Program of Studies

The program consists of thirty semester hours of course work, including at least 21 semester hours at the 5000 level and a thesis (with oral defense).

Thesis

A thesis and an oral defense, both satisfactory to the Graduate Studies Committee of the academic department, must be completed to meet degree requirements.

Final Comprehensive Examination and Scholarly Paper

During the final semester of taking courses, graduate students will submit an Application for Comprehensive Examination to the Graduate Advisor. This written comprehensive examination, satisfactory to the Graduate Faculty of Teacher Education, must be completed before the degree will be awarded. All M. Ed. degree candidates will be expected to write several scholarly papers, one of which must be presented to the Graduate Advisor for inclusion in the student's file.

Certification for Candidates Who Have Completed a Bachelor's Degree

Certification for Post-Baccalaureate Students

Initial teacher certification can be earned by candidates who possess an undergraduate or advanced degree. Eligibility for these programs includes a minimum 2.50 cumulative GPA in the last 60 hours from an accredited college or university, successful completion of the THEA (Texas Higher Education Assessment), and development of an approved plan of study. Eligible applicants for certification programs will be notified that they may enroll as non-degree students but will need to contact the Certification Office in the College of

Education immediately for eligibility into one of several certification or endorsement programs.

Professional certification is available in the following areas: Principal, Superintendent and Supervisor (Educational Leadership and Foundations Department), Educational Diagnostician, School Counselor, Community Counselor and Special Education Counselor (Educational Psychology and Special Services Department) and all-levels Reading Specialist and Master Reading Teacher (Teacher Education Department).

All post-baccalaureate students are required to maintain a minimum cumulative GPA of 2.50. Students whose cumulative GPA drops below a 2.50 are placed on academic probation and have nine semester hours in which to return the GPA to 2.50 or higher. Failure to do so will result in dismissal from the University.

Graduate-level coursework completed during the certification program that has not been used to meet other degree requirements may be recommended by the departmental Graduate Advisor to the Graduate School to count toward an advanced degree under certain circumstances. These courses are limited to a maximum of 9 semester hours in which the grade of "B" or higher has been earned within the time limits and other restrictions detailed in this *Graduate Catalog*.

Additional information on certification programs is available from the Certification Office within the College of Education and the Graduate School.

Alternative Teacher Certification Program (ATCP)

An Alternative Certification Program, conducted in partnership with local public school districts and private schools, is available to candidates who have completed a bachelor's degree with a 2.5 (or higher) overall grade point average (GPA). Candidates are required to have passed all three portions of the THEA (Math: 230, Reading: 250, Writing: 220), or have appropriate GRE scores (Verbal: 400, Quantitative: 400) or GMAT scores (Verbal: 28, Quantitative: 35). Candidates are encouraged to apply for the following teaching fields:

(Grades EC-4)

Elementary Grades Generalist
Bilingual Education Generalist

(Grades 8-12)

Dance
English Language Arts-Reading

History

(Grades 4-8)

Middle Grades Generalist

Journalism

Life Sciences

Middle Grades Bilingual Generalist

Mathematics

Middle Grades English-Reading

Physical Sciences

Middle Grades Mathematics

Science Composite

Middle Grades Science

Social Studies Composite

Middle Grades Social Studies

Speech

(Grades EC-6)

Elementary Grades Generalist

Bilingual Education Generalist

(Grades 6-12)

Business Education

(Grades EC-12)

Art

French

Health

German

Music

Spanish

Physical Education

Special Education

Theatre Arts

English as a Second Language (ESL) Supplemental

In this program, candidates teach full-time in an elementary, middle, or secondary school, while employed by a public school district or private school, and complete a one-year internship. To meet certification criteria, they must also complete **15/18** graduate credit hours while completing their internship. Although the University is approved to offer alternative teacher certifications in the areas listed, the availability of positions for these fields depends on the staffing needs of the local public and private schools. Additionally, **15 hours maybe applied to a graduate degree in Teacher Education**. The student must apply with the Graduate School concurrently to applying to the Alternative Teacher Certification Program.

In agreement with the Colleges of Engineering, Math and Science have articulated approval on courses that would equip ATCP teachers to deliver Math and Science instruction in 4-12th classrooms. These equivalencies are used to facilitate student's acceptance to the Alternative Teacher Certification Program.

The following engineering courses count for ATCP candidates as Mathematics credits:

BED 3373;CS 2401(COSC 1418);CS 2402 (COSC 2418);CS 3350;CS 3370; CS 4342; CS 4365;EE 1305; EE 3438; EE 3353;EE 3384;EE 4341;EE 4364;EE 4365;EE 4386;EE 4388;ME 4111;ME 4311;IE 4353;IE 4385;IE 4492;BE 1101;BE 1301;BE 2326;BE 3341

The following engineering courses count for ATCP candidates as Physics/Chemistry credits:

BE 2434;CE 3325;CE 3343;CE 4153;CE 4348;CE 4456;EE 1305;EE 2351;EE 3321;EE 3329;EE 3340;EE 3438;EE 3385;BE 2377;EE 4142;EE 4347;EE 4350;EE 4356;EE 4361;EE 4380;EE 4381;EE 4383;EE 4385;EE 4386;EE 4389;BE 2338 (ENGR 2302);ME 3363;ME 3365;BE 2375;ME 3376;ME 4111;ME 4355;ME 4364;ME 4351;BE 2303;MVE 3306;MVE 3308;MVE 4404

Note: The State of Texas is in the process of changing areas and prerequisite testing requirements. Commensurate with these state requirements, ATCP certification areas may be

subject to change

College of Education Graduate Programs Office

Students who are interested in pursuing a graduate degree or certificate, or want to take courses for professional development visit the College of Education Graduate Programs Office to learn more about programs of study. Staff and advisors provide assistance and advise students as they develop plans to reach their academic/career goals. The graduate programs office helps students take the necessary steps towards becoming a counselor, diagnostician, principal, superintendent or entering a specialized education field. Students who are exploring diverse career paths can gather information about the various graduate degrees and certification programs offered at the College of Education, including the application and admissions process.

For more information please contact College of Education Graduate Programs Office, Education 207, (915) 747-8431 or 747-5515.



Educational Leadership and Foundations

501 Education Building
(915) 747-5300

CHAIR: Jorge Descamps

PROFESSORS EMERITI: Herbert K. Heger, John B. Peper

GRADUATE FACULTY: Brooks, Daresh, Johnston, Mendez, Navarro, Pacheco, Rincones, Schulte, Sorenson

DOCTORAL FACULTY: Brooks, Daresh, Johnston, Mendez, Navarro, Pacheco, Rincones, Schulte, Sorenson, Staudt

VISITING ASSOCIATE PROFESSOR: Cortez

The Department of Educational Leadership and Foundations offers three graduate degrees: I) a *M.Ed. in Educational Administration* with focus on K-12 administration or leadership in higher education; II) a *MA. in Education* with focus on educational leadership in higher education which includes writing a thesis; and III) an *Ed.D. in Educational Leadership and Administration*. In addition to these degrees the department offers course work leading to Texas certification in the areas of: 1) School Principal, and 2) School Superintendent. For additional information, see our website: <https://academics.utep.edu/edleadership>.

I. M.Ed. in Educational Administration

Students who wish to pursue graduate study directed toward developing leadership knowledge and skills may pursue a master's in educational administration with focus on: A) K-12 school administration or B) leadership in higher education.

A. Focus on K-12 Administration

The 36 credit hour Master's of Education (M.Ed.) degree program in Educational Administration with emphasis on K-12 administration is designed to meet the needs of students seeking to develop the knowledge, skills, and dispositions essential to becoming effective K-12 educational leaders. The program requires completion of a set of Foundation courses, General Administration courses, and Specialized Preparation courses.

Foundation Courses: All Foundation Courses must be taken prior to completing courses at the next level. All four courses will be offered every term throughout the academic year: EDAD 5310 *Administrative Leadership*; EDAD 5312 *Instructional Leadership*; EDAD 5340 *School-Community Leadership*; EDRS 5307 *Data-Based Decision Making*

Advanced Administration Courses: The Advanced Administration Courses will be completed by all students admitted into the program. Prerequisites for registration will be successful completion of at least three of the four Foundation Courses. The fourth Foundation Course may be in progress while the student registers for Advanced Administration courses. These courses include: EDAD 5314 *School-Based Budgeting*; EDAD 5342 *Educational Law*; EDAD 5345 *Educational Leadership in a Diverse Society*; EDAD 5348 *Administration of School Personnel and Services*.

Specialized Preparation Courses: The Specialized Preparation Courses may be completed while the student is also enrolled in one or more of the Advanced Administration Courses. These courses include: EDAD 5311 *Curriculum Renewal*, EDAD 5346 *Educational Program Planning and Evaluation* and EDAD 5352 *Integrative Instructional Leadership and Professional Development*. Students also take three hours from: SPED 5320 *Historical and Legal Basis in Special Education* or BED 5331 *Bilingual/Bicultural Curriculum Design and Development*. The purpose of these course offerings is to enable students without sufficient background and/or experiences to better understand major issues, trends, and practices associated with school administration in the areas of Special Education and Bilingual Education.

Exit Portfolio: Students will present a portfolio containing relevant and practical administrative-based material which includes a current resume, the Administrative Skills Assessment results (completed during EDAD 5310), an Educational Platform (completed during EDAD 5312), a community analysis paper (completed during EDAD 5340), along with other coursework activities as associated with the Learner-Centered Standards for Principals in Texas. The portfolio will be reviewed by faculty members and local expert school administrators to determine whether the individual student has demonstrated sufficient academic growth to warrant the granting of a Master's of Education (M.Ed.) degree in Educational Administration.

Students enrolled in the M.Ed. program may additionally seek admission into the Principal Preparation Program which culminates with principal certification in the state of Texas. (See section on Principal Certification.)

B. Focus on Higher Education Leadership

The M.Ed. degree program in Educational Administration with focus on leadership in higher education is designed to meet the needs of students seeking to develop the knowledge, skills, and dispositions essential to becoming effective educational leaders in higher education institutions. The program requires the following courses:

Foundation Courses: All three Foundation Courses must be taken prior to completing courses at the next level and will be offered every term throughout the academic year: EDAD 5310 *Administrative Leadership*; EDAD 5312 *Instructional Leadership*; and

EDAD 5340 *School-Community Leadership*

Higher Education Courses: All students enrolled in the M.Ed. program with focus on higher education will complete 21 semester hours in higher education. Prerequisites for registration will be successful completion of the three Foundation Courses. Students enroll in EDAD 5390 *Introduction to Higher Education*; EDAD 5391 *History of Higher Education*; EDAD 5393 *Higher Education Law*; and EDAD 5394 *Higher Education Governance*; and take three courses from: EDAD 5345 *Educational Leadership in a Diverse Society*; EDAD 5346 *Educational Program Planning and Evaluation*; EDAD 5385 *Ethics of Leadership in Education*; EDAD 5386 *Educational Policy Development*; and EDAD 5397 *Student Development Theory*.

Research Courses: The following Research Courses may be completed while the student is also enrolled in one or more of the Advanced Higher Education Courses: EDRS 5305 *Educational Research and Statistics* and EDRS 5306 *Qualitative Research*.

Exit Portfolio. Students will present a portfolio containing relevant and practical administrative-based material which includes a current resume, the Administrative Skills Assessment results (completed during EDAD 5310), an Educational Platform (completed during EDAD 5312), a community analysis paper (completed during EDAD 5340), along with other coursework activities. The portfolio will be reviewed by faculty members to determine whether the individual student has demonstrated sufficient academic growth to warrant the granting of a Master's of Education (MEd.) degree in Educational Administration.

II. Master of Arts in Education

The Master of Arts degree in Education is a college-wide degree designed for students specializing in education who wish to pursue research and to continue studies beyond the master's degree. The department offers a MA in Education with focus on educational administration and leadership in higher education.

Focus on Educational Administration and Higher Education Leadership

The MA in Education with focus on educational administration and leadership in higher education requires the following courses which are taken in the same order as in the MEd. with focus on leadership in higher education:

Foundation Courses: EDAD 5310 *Administrative Leadership*; EDAD 5312 *Instructional Leadership*; and EDAD 5340 *School-Community Leadership*.

Higher Education Courses – All students enrolled in the MA in Education program with focus on higher education will complete 15 semester hours in higher education. Students enroll in EDAD 5390 *Introduction to Higher Education*; EDAD 5393 *Higher Education Law*; and EDAD 5394 *Higher Education Governance* and take two courses from: EDAD 5345 *Educational Leadership in a Diverse Society*; EDAD 5346 *Educational Program Planning and Evaluation*; EDAD 5385 *Ethics of Leadership in Education*; EDAD 5386 *Educational Policy Development*; and EDAD 5397 *Student Development Theory*.

Research Courses: Students enroll in EDRS 5305 *Educational Research and Statistics*; EDRS 5306 *Qualitative Research*.

Thesis Courses: A thesis and oral defense must be satisfactorily completed to meet the MA in Education degree requirements. Students enroll EDAD 5398 *Thesis Research*; and EDAD 5399 *Thesis Writing*.

Admission Requirements for the M.Ed. and M.A. in Education Degrees

Students seeking admission to the MEd. and the MA in Education must complete the following prior to the semester in which they first plan to enroll. Application deadlines for the department may differ from those of the Graduate School.

- **Unconditional** admission into the MEd. and MA in Education degree programs requires the following:
 - a. Application for admission to the Graduate School;
 - b. Completion of a bachelor's degree from an accredited university;
 - c. Attainment of an undergraduate cumulative Grade Point Average (GPA) of at least 3.00; or
 - d. Attainment of an undergraduate GPA of no less than 3.00 in all upper division undergraduate coursework;
 - e. Evidence of successful completion of at least 12 semester hours of coursework in upper division undergraduate coursework in professional education;
 - f. A written statement by the applicant describing personal and professional goals as related to the focus of the MEd. and MA programs in Educational Administration.
- **Conditional** admission may be granted to applicants who have been denied unconditional admission to the program. The Admissions Review Committee of each program will consider and make recommendations to admit applicants conditionally. Terms of any conditional admittance will be determined on an individual basis, and will be specified in writing to the Graduate School and to the applicant.

Non-Degree Programs

In addition to the MEd. and MA in Education degree programs, the department offers coursework leading to Texas certification in the areas of: 1) School Principal, and 2) School Superintendent. The Principal Certification Program is available to students who have completed the MEd. in Educational Administration in the department as well as to students with a master's degree from another related field.

Principal Certification Program for Students with M.Ed. in Ed. Administration

A separate application and review process will be completed by those, who after completing a MEd. in Educational Administration in the department seek admission into the program. When applying to the Principal Certification Program students must submit three professional letters of recommendation and have 1) a valid Texas teaching certificate, 2) a minimum of two years teaching experience, and 3) a passing score (80% or greater) in the TExES Qualifying Examination. The application and review process will occur during the final semester of coursework as listed in the student's approved Plan of Study. The review is based on the standards-based Exit Portfolio presentation which serves as a culmination of learning experiences during the Master's of Education (MEd.) degree program.

The Principal Certification Program requires two additional internship courses and culminates with certification as a school principal in the state of Texas. The internship courses are: EDAD 5375 *School Management Internship I* and EDAD 5376 *School Management Internship II*.

Principal Certification Program for Students without M.Ed. in Ed. Administration

Students who do not have a MEd. in Educational Administration from the department and who wish to pursue principal certification must apply to Graduate School for admission to Principal Certification Program and then submit to the Department of Educational Leadership and Foundations (EDLF): 1) Documentation of Master's degree in Education or related field; 2) Documentation of two years of classroom teaching experience in an accredited school; 3) Three letters of recommendation from school or central office supervisors; 4) A statement of vision and personal belief about the Principalship. A review process and admission recommendation by the Principal Preparation Program Committee will be completed prior to admission into the program (Conditional Admission).

Foundation Courses: The Principal Certification Program requires that all students complete the four Foundation Courses: EDAD 5310 *Administrative Leadership*; EDAD 5312 *Instructional Leadership*; EDAD 5340 *School-Community Leadership*; EDRS 5307 *Data-Based Decision Making*. Upon completion of the Foundation Courses, students must score at least 80% in the TExES Qualifying Exam in order to be classified as Unconditionally Admitted. If not successful in the Qualifying Exam students may continue taking courses as Conditionally Admitted.

Students are expected to complete the following program courses, or show evidence of competence in the required standards for principal certification through previous coursework and/or professional experiences consistent with the specifications established in the Texas State Board for Educator Certification (SBEC 21.046) policy.

General Administration Courses: EDAD 5314 *School-Based Budgeting*; EDAD 5342 *Educational Law*; EDAD 5345 *Educational Leadership in a Diverse Society*; and EDAD 5348 *Administration of School Personnel and Services*.

Specialized Courses: EDAD 5311 *Curriculum Renewal*; EDAD 5346 *Educational Program Planning and Evaluation*; EDAD 5352 *Integrative Instructional Leadership and Professional Development*; plus 3 hours from: SPED 5320 *Special Education – Historical and Legal Basis* or BED 5351 *Bilingual/Bicultural Curriculum Design and Development*.

Internship: After scoring ($\geq 80\%$) in the TExES Qualifying Exam, which is a prerequisite to the internship, students enroll in EDAD 5375 *School Management Internship* and EDAD 5376 *School Management Internship II*.

Exit Portfolio: Additionally, students develop as part of the foundation core courses and throughout the program a professional portfolio reflective of the TExES domains and competencies for principal certification.

After completing all the program requirements students are able to register for the TExES Principal Exam (068).

Superintendent Certification Program

The Department of Educational Leadership and Foundations offers a Superintendent Preparation/Certification Program. Students who wish to pursue superintendent certification must apply to the Graduate School for admission and then submit to the Department of Educational Leadership and Foundations: 1) Documentation of master's degree, 2) Documentation of Texas principal certification (prior to 1996 or mid-management administrator 1973 program), and 3) Three letters of recommendation from school or central office personnel. A review process and admission recommendation by the Superintendent Preparation Program Committee will be completed prior to admission into the program.

The program is designed as a follow-through educational leadership experience to the principal preparation program to prepare students for 1) executive level positions in school districts, and 2) for the TExES Superintendent Exam (064). Students enrolled in the program are required to complete the following courses: EDAD 5380 *School Organization, Reform and Renewal*, EDAD 5382 *Educational Finance*, EDAD 5384 *Educational Facilities Management*, EDAD 5386 *Educational Policy Development*, EDAD 5388 *Central Office Administration*, and EDAD 5389 *School Superintendent Internship*. Superintendent Certification plans must be approved by the faculty advisor, the director of the Superintendent Preparation Program Committee, and the certification officer. After completing all the program requirements students are able to register for the TExES Superintendent Exam (064).

III. Ed.D. in Educational Leadership and Administration

The Doctor of Education (Ed.D.) degree program in Educational Leadership and Administration offers students opportunities to develop the added knowledge, skills, and experiences necessary for leadership roles in educational settings. Typically, graduates of the doctoral program prepare for positions in three general career areas: 1) Central office and school site leadership, 2) Leadership in higher education and other educational settings, and 3) Leadership in educational policy and evaluation. Unique program features are: emphasis on educational leadership issues in the U.S. - Mexican border with opportunities for research in this cultural and linguistically diverse region, and a cohort program which provides a sense of community and mutual support during students' doctoral experiences.

Requirements for Admission

Admission to the program is based on a variety of factors, including academic achievement, the probability of success in performing doctoral level work, and perceived fit with the cohort experience. The following criteria are considered: a) Written Letter of Intent, b) Curriculum Vitae/Resume, c) Letters of Recommendation, d) Statement of Personal Beliefs, e) Transcripts, f) Graduate Record Exam (GRE), g) Completion of a Master's Degree, h) Faculty Interview.

Completion of a Master's Degree: Students entering the doctoral program should have completed a master's degree in educational administration or leadership, or an equivalent field. In cases where the degree was not in the field of educational administration or leadership, students may be required to enroll in master's level courses and other learning experiences as determined by the program faculty advisor. Courses required to remove deficiencies or meet prerequisites will not count toward meeting doctoral degree credit-hour requirements. These requirements must be met before permission will be granted to enroll in the doctoral core courses.

Selection of Doctoral Students: Applicants who consistently demonstrate potential for success throughout the application process may be accepted to the Ed.D. program. Admission to the program is competitive. The number of applicants commonly exceeds the faculty resources available to provide an appropriate level of academic support for each new and continuing student. As a result, it is often necessary to deny admission to otherwise qualified applicants.

Pre-Admission Course-Taking: Students are discouraged from taking courses prior to admission to the program and are cautioned that doing so will not be a factor in doctoral program admission decisions. If students, nevertheless, wish to take courses, they may not take core courses or research methods courses. No more than six semester credit hours of work may be transferred from other universities or from UTEP for credit toward the doctoral degree.

Application Process: The admission application deadline is March 15. The selection of cohort members is completed by April 15. Application materials should be sent to two different offices: the Graduate School, and the Department of Educational Leadership and Foundations.

Graduate School (Application Evaluator; Academics Services Bldg. Room 223; 915-747-5491):

- Graduate School Admissions Application (You may apply on-line at www.utep.edu/graduate/)
- Official transcripts of all undergraduate and graduate coursework completed
- Graduate Record Examination (GRE) – Verbal, Quantitative, and Analytic Writing scores. To schedule the GRE, call the GRE Center at (800) 473-2255 or the Prometric Center in El Paso at (915) 842-7500.
- Application fee
- TOEFL exam required for international students

Department of Educational Leadership and Foundations (Education Bldg. Room 501; Phone: 915-747-5300) / Fax (915-747-5838):

- Letter of intent
- Curriculum vitae/resume
- Typed, double-spaced statement of personal beliefs regarding educational leadership, which includes short and long-term career goals and aspirations (maximum 1,500 words)
- Three letters of reference that focus on applicant's achievements, leadership ability and aptitude for graduate study
- Any additional information (publications, papers submitted in graduate courses, etc.) that may enhance the application

Degree Program Requirements

Credit Hour Requirements: The minimum credit hour requirement is 60 semester credit hours beyond the Master's degree. Students may be required to take additional courses to address particular specialization interests. Minimum credit hours shall be distributed in the following way.

- Doctoral Core Courses (18 credit hours)
- Specialization Area Courses (12 credit hours) and
- Electives (6 credit hours)
- Research Design and Methodology Courses (12 credit hours)
- Field-Based Learning (3 credit hours)
- Capstone Course (3 credit hours)
- Dissertation (6 credit hours)

Doctoral Core (18 credit hours): The doctoral program core consists of six courses: EDAD 6300 *Introduction to Doctoral Program*; EDAD 6301 *Historic and Philosophical Foundations of Education*; EDAD 6304 *Seminar on Organizational Theory and Development*; EDAD 6306 *Seminar in Decision Making and Problem Solving in Education*; EDAD 6310 *Evaluation, Accountability, and Policy Analysis Models*; and POLS 6303 *Seminar in Cultural, Linguistic, and Political Borders*. These courses are offered as follows: one in the summer session of the year of admission, two courses in the fall and spring semesters respectively, and one in the summer session of the following year. Students are required to take the six core courses during the first year of academic studies. First year students may not take an additional course during a semester in which they drop a core course.

Transfer of Credits: No more than six semester credit hours of work may be transferred from other universities or from UTEP for credit toward the doctoral degree. Transfer of credit is subject to approval by the Doctoral Program Committee. Transfer courses must be post-master's, not for a specialist's degree, and must fit well with the program, as determined by the Committee.

Specialization Area Courses (12 credit hours): After the completion of the core, students -with guidance and approval from their Faculty Advisor and the Director of the Doctoral Program Committee- will identify a program area of specialization in their doctoral work and select courses related to this area.

Electives (6 credit hours): Additionally, students select two courses within the department or from other academic units of the university, which will add to their specialization area. Educational Leadership and Foundations courses must be at the level of 5380 or higher. Other UTEP courses must be at the 5300 level or higher. Courses taken to attain prior academic degrees are not accepted as electives.

Research Design and Methodology Courses (12 credit hours): Students enroll in twelve hours of course work in the areas of quantitative and qualitative research design and methodology; EDRS 6302 *Educational Research Methods*; EDRS 6315 *Qualitative Research Methods I*; EDRS 6318 *Quantitative Research Methods I*; and 3 hours from: EDRS 6316 *Qualitative Research Methods II* and EDRS 6319 *Quantitative Research Methods II*. These courses help students develop the skills and knowledge needed to carry out effective independent research during the dissertation phase of the doctoral program.

Field-Based Learning (3 credit hours): Students enrolled in the program are expected to complete three semester credits in field-based learning activities which are designed to provide opportunities for practical application of the theoretical concepts acquired in core and elective courses. Take note that EDAD courses completed as part of an earlier master's or certification program cannot be transferred into the doctoral program. The two courses which may satisfy this requirement are: 1) EDAD 6350 *Internship in Leadership* or 2) EDAD 5389 *School Superintendent Internship*.

Capstone Doctoral Course (3 credit hours): All doctoral students, prior to developing a formal proposal or beginning work on the dissertation, will be required to take EDAD 6380

Capstone Doctoral Seminar. This culminating course must be taken in the last semester of doctoral coursework and prior to EDAD 6398 *Dissertation Research*. The Capstone Doctoral Course takes the place of the Qualifying/Comprehensive Examination. Successful completion of the course advances students to doctoral candidacy. The course is aimed at ensuring that students are fully prepared to begin work on the dissertation and are able to demonstrate a range of skills and abilities, including an ability to frame a dissertation research question; undertake a thorough, focused literature review; make a decision regarding the type of research design that makes sense given the question; and define the type of data analyses that make possible the reaching of certain conclusions.

Dissertation: After successful completion of EDAD 6380 *Capstone Doctoral Seminar* and advancement to candidacy, students take EDAD 6398 *Dissertation Research* and EDAD 6399 *Dissertation Writing*.

Advising and Assessment of Students

The Doctoral Program Committee is vested with the responsibility of making key decisions regarding the doctoral program and related issues. Among the issues to be decided by the Doctoral Program Committee are: assignment of first year Faculty Mentors and Program Advisors, review of requests to transfer up to six semester hours upon entry into the doctoral program, and approval of dissertation committees. Doctoral faculty support students in three different roles as:

Faculty Mentor: A Faculty Mentor will be assigned to each doctoral student after admission to the program to provide her/him with guidance and support during the first year of study.

Program Advisor: A Program Advisor who will assist each student in preparing and carrying out a doctoral plan of study will be identified during the Fall Semester of the second year. The Program Advisor may be the same person as the Faculty Mentor, but does not need to be.

Dissertation Committee Member: A student's dissertation committee will be officially formalized after successful completion of all coursework and of the Capstone Doctoral Seminar and advancement to candidacy. The committee will include at least four faculty members (usually three members of the Doctoral Program faculty and one from outside the department).

Degree Plans: A draft of the Preliminary Degree Plan will be prepared by the Faculty Mentor in consultation with the student before the completion of the first year. By the end of the first year of study, a final version of the Preliminary Degree Plan will be prepared and forwarded to the Doctoral Program Committee for review and approval. The Preliminary Degree Plan will then be forwarded to the Graduate School for approval. Once approved, a copy will be sent to the student and the Doctoral Program Committee. Any proposed modification to the approved Preliminary Degree Plan must be approved by the Program Advisor and the Doctoral Program Committee.

Interim Review: At the end of the second summer of the program all students, irrespective of whether they have completed all core courses, will be reviewed by the faculty members who taught the Core Courses. This Interim Review will address issues including: progress in the program; course work to date; writing and clarity of conceptual thinking; commitment to the doctoral program; and potential research interests. The review is designed to reveal the doctoral nominee's academic strengths and weaknesses and the probability of the

nominee's successful completion of the program through the doctoral dissertation.

Capstone Course: All doctoral students, prior to developing a proposal or beginning work on the dissertation, will be required to take a Capstone Doctoral Seminar which takes the place of the Qualifying or Comprehensive Examination. Successful completion of the course will advance students to doctoral candidacy. The Doctoral Program Committee will be responsible for the design of the Capstone Seminar and criteria for evaluating student performance in the course. Course design and evaluation criteria will be reviewed and approved by the full faculty.

Dissertation

Students may not register for dissertation courses until they have successfully completed the Capstone Doctoral Seminar (EDAD 6380) and advanced to candidacy. The dissertation research course (EDAD 6398) must precede the dissertation writing course (EDAD 6399) and the student cannot enroll in these courses simultaneously. A dissertation is required of every candidate. It must address a topic of educational significance, contribute to scholarship, derive from independent investigation in the major area, and be approved by the Dissertation Committee.

Dissertation Committee: The Doctoral Program Committee in consultation with the student will appoint a Dissertation Committee. Committee appointments will take into consideration faculty academic expertise in the student's specialization area and the Department's interest in maintaining workload balance among faculty. The Dissertation Committee shall include at least four faculty members (three members of the Doctoral Program faculty and one from outside the department). The Dissertation Committee approves the dissertation proposal, advises the student on the research and writing of the dissertation, and conducts the final dissertation oral examination.

Dissertation Proposal: Students work with their Dissertation Committee in planning, designing, and implementing independent scholarly research. They enroll in EDAD 6398 *Dissertation Research* during this period, and develop a dissertation proposal with their Doctoral Dissertation Committee. Students continue to enroll in EDAD 6398 until the proposal is approved by the Dissertation Committee. Once the dissertation proposal has been approved, the doctoral candidate will enroll in EDAD 6399 *Dissertation Writing* until the dissertation is completed.

Dissertation Defense: A satisfactory final oral defense of the dissertation is required. The Department of Educational Leadership and Foundations will publish the time and place of this examination. College of Education faculty members are encouraged to attend, and the exam is open to all members of the University community and the public. Dissertation Committee members indicate their approval by signing the Dissertation Defense form that is then submitted to the Graduate School. A majority of the Dissertation Committee members must approve the dissertation. The results of the review are then communicated to the student.

Graduation: At the beginning of a student's last semester, she/he must complete a Graduation Application form, have it signed by the Doctoral Dissertation Committee, and submit this form to the Graduate School along with the appropriate diploma fee. Students are strongly encouraged to visit the Graduate School at the beginning of the semester in order to ensure compliance with all required deadlines. Once all program requirements are met, the candidate will be awarded the degree of Doctor of Education.

Educational Administration (EDAD)

5310 Administrative Leadership (3-0)

An introduction to the roles and functions of the school administrator emphasizing administrative and organizational theory and practice; identifies the primary knowledge, skills, and competencies required to be an effective school administrator. *Prerequisite:* Department approval.

5311 Curriculum Renewal (3-0)

The course introduces and explores fundamental dimensions of curriculum theory, policy, and practice as these interact, affect, and are influenced by the school organization. The course includes discussion of current pedagogical, theoretical, historical, legislative, and other field-based issues of diverse paradigms in curriculum renewal from a school administrative perspective. *Prerequisites:* EDAD 5310, EDAD 5312, EDAD 5340, and ERDS 5307 each with a grade of "B" or better and department approval.

5312 Instructional Leadership (3-0)

An introduction to the roles and responsibilities of the supervisor or school administrator as an instructional leader; emphasizes systematic classroom observation, evaluation of teaching, and clinical supervision. *Prerequisite:* EDAD 5310 with a grade of "C" or better.

5314 School-Based Budgeting (3-0)

This course provides students with an overview of educational budgeting practices and issues, with a primary emphasis on school sites. The course includes an introduction to the planning, cost-effectiveness, and resource allocation issues that arise in the educational budgeting process. Students also have opportunities to consider the equity consequences of the budgeting process, as well as the relationship between educational goals and associated resource allocation decisions. Course readings, assignments, and activities encourage students to develop a conceptual understanding of site-based budgeting and practical skills to participate in the budget development process. *Prerequisite:* EDAD 5310, EDAD 5312, EDAD 5340, and EDRS 5307 each with a grade of "C" or better.

5340 School Community Leadership (3-0)

Treats interpersonal relations and human variables in groups and formal organizations with special emphasis on schools and organizations; identifies strategies for the school principal to improve work group effectiveness. *Prerequisites:* EDAD 5310 and EDAD 5312 each with a grade of "C" or better.

5342 Educational Law (3-0)

An introduction to the federal and state legal systems including constitutional provisions, federal and state regulations, and court decisions affecting public education; includes student and employee rights and responsibilities, statutory and assumed authority of school boards, relations with employee organizations, civil liability of school personnel, and elements of due process. *Prerequisites:* EDRS 5306, EDAD 5310, and EDAD 5312.

5345 Educational Leadership in a Diverse Society (3-0)

Overview and systematic application of essential qualitative inquiry skills appropriate for use by school leaders to investigate issues of inclusion and diversity and generate effective curricular, instructional and administrative policies and practices. *Prerequisite:* EDAD 5310, EDAD 5312, EDAD 5340, and EDRS 5307 each with a grade of "C" or better.

5346 Educational Program Planning and Evaluation (3-0)

Opportunity to develop the knowledge, skills, and competencies required to plan and manage regular and special school programs; includes policy formulation, goal setting, and evaluation emphasizing data-based management systems; requires field-based component. *Prerequisites:* EDAD 5310 and EDAD 5312, EDAD 5340, and EDRS 5307 each with a grade of "C" or better.

5348 Administration of School Personnel and Services (3-0)

Emphasizes school management tasks and responsibilities related to certified and non-certified staff including position descriptions, recruitment, selection, assignment, and compensation; treats EEO regulations, due process, grievance handling, and other legal requirements including collective bargaining. *Prerequisites:* EDAD 5310, EDAD 5312, EDAD 5340, and EDRS 5307 each with a grade of "C" or better.

5351 Campus Management Methods and Systems Operations (3-0)

This course provides students with opportunities to apply principles of leadership and management relative to the campus physical plant and support systems to ensure a safe and effective learning environment. The course also includes developmental and implementation procedures for crisis planning and for responding to crises along with strategies for addressing student safety during campus security concerns and emergencies. *Prerequisites:* EDAD 5310, EDAD 5312, EDAD 5340, and EDRS 5307 each with a grade of "B" or better.

5352 Integrative Seminar in Instructional Leadership and Professional Development (3-0)

This course is designed to introduce prospective school leaders to the interconnections among major improvement initiatives while enhancing the role of campus administration whereby instructional leaders must seek continuous improvement processes designed to meet and exceed state accountability standards. The course incorporates state-mandated and school district required Instructional Leadership Development (ILD) training and Professional Development and Appraisal Systems (PDAS) training modules. (Maymester/Wintermester) *Prerequisites:* EDAD 5310, EDAD 5312, EDAD 5340 and EDRS 5307 each with a grade of "B" or better.

5365 Directed Individual Study (0-0-3)

Area of study will be designated. May be repeated for credit when topic varies. *Prerequisite:* Department approval.

5370 Graduate Workshop in Educational Administration and Supervision (0-0-6)

Selected topics for graduate students, supervisors, and school administrators in such areas as grant writing, school discipline, computer utilization, and other special problems. May be repeated for credit when topic varies. *Prerequisites:* EDAD 5310, and EDAD 5312, EDAD 5340 and EDRS 5307 each with a grade of "B" or better.

5375 School Management Internship I (1-0-4)

First half of a two-course sequence including planned field experience and seminars for the Professional Principal Certification candidate; field experience includes working with a fully certified cooperating administrator in elementary, middle, and high school settings under the supervision of a university professor; includes administration of special programs, community education programs, student services, discipline management, scheduling, budgeting, and school business management. *Prerequisites:* Department approval.

5376 School Management Internship II (1-0-4)

Continuation of EDAD 5375. *Prerequisites:* EDAD 5375 and department approval.

5380 School Organization, Reform and Renewal (3-0)

Describes systems, cultural and community of learner approaches to the school organization; emphasizes institutionalization of organization development in school districts and essential competencies for organization reform and renewal. *Prerequisite:* Department approval.

5382 Educational Finance (3-0)

Basic concepts of the economics of education; uses the systems approach to analyze the issues of equity and equality in educational resource allocation and distribution; includes current Texas state funding policies. *Prerequisite:* Department approval.

5384 Educational Facilities Management (3-0)

Identifies the knowledge, skills, and competencies required of the school administrator to manage educational facilities; includes population projections and needs assessments, planning, developing educational specifications, site selection, capital outlay, and costs; covers rehabilitating existing buildings, maintenance and operations, and equipment management. *Prerequisite:* Department approval.

5385 Ethics of Leadership in Education (3-0)

This course examines classic to contemporary works in philosophy, political science, history, literature, and other disciplines in an attempt to understand the importance of ethics and to imbue the value and necessity of ethical principles in our educational leaders. *Prerequisite:* Department approval.

5386 Educational Policy Development (3-0)

Treats the techniques of describing and selecting among alternative problem solutions based on quantifiable predictions; application to both general and specific educational issues including socio-political factors. *Prerequisite:* Department approval.

5387 Higher Education Policy Analysis (3-0)

The course investigates the predominant theoretical and practitioner works in higher education policy research. The course provides a foundation for the critical analysis of postsecondary educational policy and the policy-making process. *Prerequisite:* Department approval.

5388 Central Office Administration (2-0-2)

Critical aspects of central office administration including personnel, programs, budget, planning, evaluation, school board relations, state and federal influences, and general administration of a school district; field experience required. *Prerequisite:* Department approval.

5389 School Superintendent Internship (1-0-4)

Planned field experience and seminars for the Professional School Superintendent Certificate candidate; field experience includes working with a fully certified cooperating administrator in school and central office settings under the supervision of a university professor; includes consideration of problems relating to overall school district operations. *Prerequisites:* Completion of all other course work required for the Superintendent Certificate and department approval.

5390 Introduction to Higher Education (3-0)

This course introduces students to the organization of higher education institutions, including two- and four-year colleges and universities. Students will explore the history and philosophy of higher education along with exposure to some of the main issues in higher education including governance, politics, finance and relationships with various constituent groups. Students will develop an understanding of the background, growth, purposes, and practices of higher education in the United States. *Prerequisite:* Department approval.

5391 History of Higher Education (3-0)

This course will examine historical trends in higher education that have affected faculty, staff, students, and trustees in terms of traditions, customs, values, and practice. *Prerequisite:* Department approval.

5392 The Community College (3-0)

This course provides a historical overview of the development of American community colleges. The course focuses on the social forces leading to the community college movement, educational philosophies, and multiple institutional missions. The roles and responsibilities of leaders in meeting the needs of diverse populations will be emphasized. Particular attention will be paid to the organizational structures and processes that shape administrative decision making and educational leadership. *Prerequisite:* Department approval.

5393 Higher Education Law (3-0)

This course will emphasize the legal environment of postsecondary education legal processes, and analysis of problems incurred in the American system of higher education. This course will also examine past and present legal precedence as established by state, federal, and supreme courts. *Prerequisite:* Department approval.

5394 Higher Education Governance (3-0)

The purpose of this course is to expose the student to the literature on management of higher education institutions. This course will help future higher education leaders understand the distinctive organization and behavioral features of colleges and universities, and use this knowledge to better manage and lead their institutions. *Prerequisite:* Department approval.

5395 Politics of Higher Education (3-0)

This course will examine the politics of educational organizations and leadership. It is designed for the educational leader and researcher who deal with the impact of political action on managing and leading educational institutions. It provides an introduction to the field of educational politics with special emphasis on theoretical and conceptual analysis of the political behavior of education's stakeholders. *Prerequisite:* Department approval.

5396 Higher Education Finance (3-0)

This course will provide an overview of the economics and financing of postsecondary education in the United States. It will include an introduction to economic theory as applied to institutions of higher learning, financial trends in funding America's college and universities, federal investments in higher education, tuition and fee trends, and state policy and budgeting processes. The course will briefly review the basic elements of fiscal management at the institutional level. *Prerequisite:* Department approval.

5397 Student Development Theory (3-0)

The purpose of this course is to examine a range of human development theories that offer insight into processes of student learning, growth, and development during the college years. Special focus will be directed toward understanding the implications of these theories for and practice of education in general and student affairs in particular. *Prerequisite:* Department approval.

5398 Thesis Research (0-0-3) Preparation of master thesis proposal. *Prerequisite:* Department approval.

5399 Thesis Writing (0-0-3) Writing of master thesis. *Prerequisites:* EDAD 5398 with a grade of "B" or better and Department approval.

6300 Introduction to Doctoral Program (3-0-0)

An orientation to the doctoral program in educational leadership, its values and academic expectations. Introduces students to dominant research traditions in education and the need for and nature of conceptual frameworks in the scholarly process. Students engage in conversation with program faculty regarding their areas of research interests and expertise, and are introduced to the structure and policies of the program. *Prerequisite:* Admission to doctoral program and department approval.

6301 Historic and Philosophical Foundations of Education (3-0)

This course is organized around four central themes: 1) the moral dimensions of teaching and enculturation of the young in a democracy, 2) problems of access to knowledge; 3) the notion of pedagogical nurturing; and 4) the stewardship of schools in educative communities. Key readings include selections from Plato, Rousseau, Dewey, and Goodlad. *Prerequisite:* Department approval.

6304 Organizational Theory and Development (3-0)

This course focuses on change and reform in education and the theories and professional practices used to create organizational change. *Prerequisite:* Department approval.

6306 Seminar in Decision-Making and Problem Solving in Education (3-0)

Students will examine and conduct research about decision-making processes from the perspectives of educational institutions at local, state, and national levels. *Prerequisite:* Department approval.

6307 Advanced Legal and Ethical Aspects of Leadership (3-0)

This course examines the legal and ethical issues that face educational leaders, including responsibilities, accountability, the public interests, and professionalism.

Students will also analyze and synthesize the judicial interpretations of constitutions, statutes, rules, and regulations, and the common law with special focus on individual student's interests. *Prerequisite:* Department approval.

6308 State and Local Educational Finance Policies (3-0)

Examination of research, as well as theoretical and practical foundations of economic and social accountability in educational organizations. Students will conduct comparative analyses of state educational finance policies, with emphasis on the relationships between the principles of accountability, adequacy, equity, and quality. *Prerequisite:* Department approval.

6309 Seminar in Educational Leadership (3-0)

Focus on alternative leadership styles and theories of leadership. Students will learn how to assess their own basic and preferred leadership styles. Each student will be encouraged to develop a personal growth plan in educational leadership. *Prerequisite:* Department approval.

6310 Evaluation, Accountability, and Policy Analysis Models (3-0)

Students will learn to use appropriate multiple indicators and analytic frameworks for documenting, measuring, and evaluating changes in educational policy and practice. *Prerequisite:* Department approval.

6312 Educational Leadership in Metropolitan Areas (3-0)

This course examines the social, economic, and political characteristics of urban communities and the relationship of education to social settings. The role of leadership, interest groups, and pressure groups are examined, as is the conversion processes and conflict resolution in a context of large, complex urban/minority school districts and the creation of alternative delivery systems. *Prerequisite:* Department approval.

6313 Administration of Categorical Programs (3-0)

This course examines the leadership roles in securing, administering, and evaluating categorical programs, sponsored projects, and grants. Guest lecturers will include directors of large projects. Team-taught. *Prerequisite:* Department approval.

6321 Multicultural Diversity in Educational Leadership (3-0)

Students will examine the impact of multicultural pluralism and diversity and how these concepts and practices impact leadership and administration in educational settings. *Prerequisite:* Department approval.

6340 Administrative Implications from Cognitive Psychology and Learning Theory (3-0)

Implications from cognitive psychology and learning theory for students learning in multicultural diverse urban contexts of schooling. The course examines classical and contemporary learning theories as they affect program changes in schools and other educational settings. *Prerequisite:* Department approval.

6350 Internship in Leadership (0-0-3)

With the joint guidance of a university faculty member and a practicing leader/administrator in an educational setting, students will be provided opportunities for supervised research and decision-making in a professional setting. *Prerequisite:* Permission of the Graduate Advisor.

6351 Internship in Leadership II (0-0-3)

The second semester of internship will provide continuation of supervised research and decision-making in a professional setting. *Prerequisite:* EDAD 6350 or permission of the graduate advisor.

6365 Directed Individual Study (0-0-3)

Area of study will be designated. May be repeated once for credit when topic varies. *Prerequisite:* Department approval.

6370 Graduate Workshop in Educational Leadership and Administration (3-0)

Selected topics for doctoral students in areas related to Central Office Leadership; School-site Leadership; Leadership in Other Educational Settings; or Leadership in Evaluation, Assessment, and Technology. May be repeated for credit when topic varies. *Prerequisite:* Departmental approval.

6380 Capstone Doctoral Seminar (3-0-0)

This seminar is designed to ensure that students are fully prepared to begin work on the dissertation and are able to demonstrate a range of academic skills and abilities, including an ability to: frame a dissertation research question; undertake a thorough, focused literature review; make a decision regarding the type of research design that makes sense given the question; define the type of data analyses that make possible the reaching of conclusions. *Prerequisite:* Completion of program coursework and department approval.

6398 Dissertation Research (0-0-3)

Under the direction of their Dissertation Committee Chair, students will prepare a dissertation proposal. Continuous registration is required until the proposal is approved by the Dissertation Committee. *Prerequisites:* Admission to doctoral candidacy, permission of Dissertation Committee Chair, and department approval.

6399 Dissertation Writing (0-0-3)

Students, under the direction of the Dissertation Committee Chair, will write a dissertation. Continuous registration in EDAD 6399 is required until the dissertation has been successfully defended and is accepted by the Dissertation Committee. *Prerequisites:* EDAD 6398 and department approval.

Educational Research and Statistics (EDRS)**5305 Educational Research and Statistics (3-0)**

First of a two-course sequence to develop interrelated concepts and skills of research methods, experimental design in education, and statistical methods; includes computer applications and required computer laboratory; requires development of a formal research proposal.

5306 Qualitative Research (3-0)

An introduction to qualitative research, showing when it is appropriate, what research questions it answers, and how to go about designing, carrying out, analyzing, interpreting, and writing up qualitative research. A practice research project is included. *Prerequisite:* EDRS 5305 with a grade of "C" or better.

5307 Data Based Decision Making (3-0)

Application of quantitative data analysis techniques for the examination of national, state and local data bases to guide school level decision making. Emphasis upon evidence based decision making, data analysis and data display for various school stakeholders.

6302 Educational Research Methods (3-0)

An overview of the assumptions and requirements of quantitative, qualitative and mixed research methodologies prevalent in educational research. Specific focus will include the appropriate use and design of surveys, experimental and non-experimental designs, measurement and sampling, case studies, ethnography, and historical studies. *Prerequisite:* Department approval.

6315 Qualitative Research Methods I (3-0)

Students will examine qualitative and ethnographic research methods, including participant observation and open-ended interviewing to address problems of educational organizations. *Prerequisites:* EDRS 6302 with a grade of "B" or better and department approval.

6316 Qualitative Research Methods II (3-0-0)

Building on qualitative research methodology, and ethnographic methods, this class will explore the variations and complexity of qualitative methods in addressing problem solving in educational settings. *Prerequisites:* EDRS 6315 with a grade of "B" or better and department approval.

6318 Quantitative Research Methods I (3-0)

This course provides examination of descriptive and inferential statistics characteristic of quantitative educational research. Topics include: measures of dispersion, standard deviation, probability, correlation, regression, and analysis of variance. Concepts and ideas will be introduced through lectures, seminars, and review of readings. *Prerequisites:* EDRS 6302 with a grade of "B" or better and department approval.

6319 Quantitative Research Methods II (3-0)

This course provides examination of advanced statistical methods associated with parametric and nonparametric research designs. Focus will include examination of hierarchical linear modeling, structural equation modeling, and the analysis of cross-classified categorical data (loglinear and logit models). Concepts and ideas will be introduced through lectures, seminars, and review of readings. *Prerequisites:* EDRS 6318 with a grade of "B" or better and department approval.





Educational Psychology and Special Services

701 Education Building
(915) 747-5221
edpsych@utep.edu

INTERIM CHAIR: Judy Reinhartz

GRADUATE FACULTY: Argus-Calvo, Combs, Cortez-Gonzalez, Dickson, Hammond, Ingalls, Johnson, Trussell

Graduate Programs and Plans

The Educational Psychology and Special Services Department offers two graduate degrees. The Master of Arts in Education degree is designed for students wishing to pursue research and to continue studies beyond the master's degree level. The Master of Education degree is directed toward the professional who wishes to prepare for specialized professional practice as a school or community counselor, educational diagnostician, or special educator. Students pursuing this degree choose the Educational Diagnostician major, Guidance and Counseling major, or Special Education major.

In addition to these degree programs, the Department offers coursework leading to School Counselor and Educational Diagnostician certification by the State Board for Educator Certification and the Special Education Counseling endorsement. Additionally, completion of the Master of Education in Guidance and Counseling (School Counseling Emphasis or Community Counseling Emphasis) prepares the student with the academic coursework necessary for licensure as a Professional Counselor (LPC) in Texas. Guidance and Counseling majors can also complete coursework necessary for licensure as a Marriage and Family Therapist (LMFT) in Texas.

Master of Arts in Education

The Master of Arts degree is designed for students who wish to pursue research and to continue studies beyond the master's degree level. Students may work with the Department of Educational Psychology and Special Services, specifically in the areas of Educational Diagnostician, Guidance and Counseling, and Special Education, to develop a plan of study. This thirty-semester hour thesis program is described under the College of Education Introductory section.

Master of Education

The Educational Psychology and Special Services Department offers the MEd. degree with the following majors:

Educational Diagnostician

Guidance and Counseling (School or Community)

Special Education

Admission Requirements

Students seeking admission to a graduate program in the Department must:

1. Submit an application to the Graduate School.
2. Have a grade point average (GPA) of 3.0 (cumulative or in student's major or in all upper division coursework).
Note: A 3.25 GPA is required in order to be interviewed for admission to the Guidance and Counseling Program.
3. Submit a resume and three letters of reference to the Department.
4. Have an interview with Departmental Graduate Studies Committee or program faculty.
5. Complete a writing sample on site at the time of the interview.

GPA's, interviews, references, and writing samples will be assessed to determine admission.

Additional admission requirements are specified below.

Educational Diagnostician

This program is intended for graduate students who possess a Texas Provisional Teaching Certificate and are interested in working with the Special Education system in the public schools. The applicant should confer with the Graduate Advisor to determine additional requirements for State Board of Educator Certification as a Professional Educational Diagnostician.

Basic Requirements: Completion of a minimum of twelve semester hours of advanced professional special education with a grade of "B" or better. The following courses are required: SPED 4330 (Diagnosis and Placement in Special Education); SPED 4340 (Transition Education for Special Learners) **or** SPED 5370 (Teaching Secondary Learners with Mild Disabilities); SPED 5361 (Cultural Principles of Positive Behavior Supports) **or** SPED 5363 (Culturally Responsive Intervention for Emotional/Behavioral Disorders) and EDPC 5370 (Special Topic: Focused on Learning and Memory). The applicant must have two years of teaching experience prior to applying to this program.

Program (36 semester hours)

| | |
|-----------|--|
| SPED 5320 | Special Education: Historical and Legal Basis |
| SPED 5330 | Early Intervention for Young Children and Their Families |
| SPED 5345 | Intervention for Students with High Incidence Disabilities in a Culturally Diverse Society |
| EDPC 5310 | Applied Research Design for Educators |
| SPED 5347 | Working with Parents of Learners with Special Needs |

- SPED 5371 Teaching Students with Severe Disabilities
- EDPC 5334 Culturally Responsive Classroom Based Assessment
- SPED 5337 Assessment: Disability and Cultural/Linguistic Factors
- EDPC 5336 Advanced Educational Appraisal
- EDPC 5344 Use and Interpretation of Cognitive Measures
- EDPC 5348 Application of Assessment for the Delivery of Instruction for "At Risk" Students
- EDPC 5375 Internship in Educational Diagnostics

Final Requirements: Students will present an oral presentation of their student portfolio to the faculty and achieve a passing score on the TExES for certification of Educational Diagnostician.

Certification: TExES exam (Texas Examination of Educator Standards)

Total: 36 semester hours

Guidance and Counseling

Applicants must have completed at least a bachelor's degree prior to applying to the Graduate School for admission.

School Counseling Emphasis

This plan is intended primarily for those wishing to be public school counselors.

Additional Admission Requirements Necessary for an Interview: Completion of a minimum of nine semester hours of undergraduate upper-division coursework in Professional Education, Behavioral Science (Psychology, Sociology, Social Work and/or Criminal Justice) or Nursing with grades of "B" or better (must be completed prior to admission to the program). SPED 5320, Special Education: Historical and Legal Basis, is an additional prerequisite requirement but may be taken after admission to the program. Successful completion of an Alternative Certification Program also meets prerequisite requirements although SPED 5320 is still required. Students applying as Professional Educators should have completed the teacher certification process prior to applying. Teaching experience is not required prior to applying.

Core Requirements (6 semester hours)

- EDPC 5317 Human Growth and Development
- EDPC 5341 Theories of Counseling

Specialization (27 semester hours)

- EDPC 5320 Lifestyle and Career Development
- EDPC 5321 School Counseling
- EDPC 5324 Ethical, Legal, and Professional Issues in Counseling
- EDPC 5338 Group Counseling
- EDPC 5339 Techniques of Counseling
- EDPC 5345 Abnormal Human Behavior
- EDPC 5346 Counseling Multi-Cultural and Diverse Populations
- EDPC 5360 Introduction to Marriage and Family Therapy
- EDPC 5362 Counseling Children, Adolescents and Their Families

Related Area (6 semester hours)

- EDPC 5310 Applied Research Design for Educators
- EDPC 5335 Principles of Appraisal and Assessment

Clinical Sequence (9 semester hours)

- EDPC 5371 Counseling Practicum
- EDPC 5372 Counseling Internship I
- EDPC 5373 Counseling Internship II

Comprehensive Examination: During final semester of coursework.

Total: 48 semester hours

Note: Students with prior master's degrees in Community or Mental Health Counseling wishing to become school counselors, may apply through the Graduate School as Certification Only students and must take specified coursework in school counseling, including an internship through UTEP in a school setting, in order to be recommended to take the School Counselor TExES exam.

School Counselor Certification: In addition to the completion of the 48 hours master's degree program, a student must also have:

1. Valid Texas Teaching Certificate.
2. Two years of classroom teaching experience in an accredited public, private, or parochial school.
3. Satisfactory completion of the Texas Examination of Educator Standards (TExES) for School Counselors.

Licensure: For licensure as a Professional Counselor in Texas, in addition to the 48 hours Master's Program, a student must have:

1. 3,000 clock hours of supervised experience and
2. Satisfactory completion of the Texas State Board Examination of Professional Counselors.

Community Counseling Emphasis

This plan is intended primarily for those pursuing employment as community counselors in a public or private agency or hospital settings.

Additional Admission Requirements Necessary for an Interview: Completion of twelve semester hours of undergraduate upper-division course work in Professional Education or Behavioral Science (Psychology, Sociology, Social Work, and/or Criminal Justice) and/or Nursing with grades of "B" or better (must be completed prior to admission to the program). Any combination of courses in the above areas is permitted.

Core Requirements (6 semester hours)

- EDPC 5317 Human Growth and Development
- EDPC 5341 Theories of Counseling

Specialization (27 semester hours)

- EDPC 5320 Lifestyle and Career Development
- EDPC 5322 Community and Agency Counseling
- EDPC 5324 Ethical, Legal, and Professional Issues in Counseling
- EDPC 5338 Group Counseling
- EDPC 5339 Techniques of Counseling
- EDPC 5345 Abnormal Human Behavior
- EDPC 5346 Counseling Multi-Cultural and Diverse Populations
- EDPC 5360 Introduction to Marriage and Family Therapy
- EDPC 5362 Counseling Children, Adolescents, and Their Families

Related Area (6 semester hours)

- EDPC 5310 Applied Research Design for Educators
- EDPC 5335 Principles of Appraisal and Assessment

Clinical Sequence (9 semester hours)

- EDPC 5371 Counseling Practicum
- EDPC 5372 Counseling Internship I**
- EDPC 5373 Counseling Internship II

Comprehensive Examination: During final semester of coursework.

Total: 48 semester hours

Licensure: For licensure as a Professional Counselor (LPC) in Texas, in addition to the 48 hours Master's Program, a student must have:

1. Satisfactorily completed the National Counselor Exam as administered by the Texas State Board Examiners of Professional Counselors
2. 3,000 clock hours of supervised experience by an Approved Supervisor.
3. Satisfactorily completed a jurisprudence examination administered by the Texas State Board of Examiners of Professional Counselors.

Special Education

This plan is intended primarily for students who have concentrated their previous academic work in any area of education. The applicant should confer with the Graduate Advisor to determine which specialization he or she will pursue.

Additional Admission Requirements: Valid Texas Teaching Certificate or equivalent; three years of teaching experience by time of program completion. All options require a valid Texas Teaching Certificate in Generic Special Education.

Core Requirements (12 semester hours)

- EDPC 5310 Applied Research Design for Educators

- EDPC 5310 Applied Research Design for Educators
- SPED 5320 Special Education: Historical and Legal Basis
- SPED 5322 Teaching Culturally and Linguistically Diverse Learners with Special Needs
- SPED 5347 Working with Parents of Learners with Special Needs

Specialization (24 semester hours in only one of the following options)

*Learning Disabled (Option 1)

- EDPC 5334 Culturally Responsive Classroom Based Assessment
- SPED 5330 Early Intervention for Young Children and their Families
- or
- SPED 5370 Teaching Secondary Students with Mild Disabilities
- SPED 5340 Theories of Learning Across the Lifespan
- SPED 5345 Interventions for Students with High Incidence Disabilities in a Culturally Diverse Society
- SPED 5363 Culturally Responsive Intervention for Emotional/Behavior Disorders
- or
- SPED 5361 Cultural Principles of Positive Behavioral Supports
- SPED 5369 Teaching Reading to Learners with Mild Disabilities
- SPED 5321 Topics in Culturally and Linguistically Diverse Education for Learners with Special Needs
- SPED 5378 Research and Applications in Special Education

*Severely Emotionally Disturbed (Option 2)

- SPED 5330 Early Intervention for Young Children and their Families
- or
- SPED 5370 Teaching Secondary Students with Mild Disabilities
- SPED 5340 Theories of Learning Across the Lifespan
- SPED 5361 Cultural Principles of Positive Behavior Supports
- SPED 5363 Culturally Responsive Interventions for Emotional/ Behavioral Disorders
- SPED 5369 Teaching Reading to Learners with Mild Disabilities
- SPED 5373 Teaching Students with Autism
- SPED 5321 Topics in Culturally and Linguistically Diverse Education for Learners with Special Needs
- SPED 5378 Research and Applications in Special Education

*Bilingual Special Education (Option 3)

- SPED 5321 Topics in Culturally and Linguistically Diverse Education for Learners with Special Needs
- BED 5331 Bilingual/Bicultural Curriculum
- SPED 5337 Assessment: Disabilities and Cultural/Linguistic Factors
- SPED 5345 Remediating Students with Learning Disabilities
- SPED 5350 Special Topic: Diagnosis and Placement
- or
- SPED 5361 Cultural Principles of Positive Behavior Supports
- or
- SPED 5363 Culturally Responsive Intervention for Emotional/Behavior Disorders

Electives: SPED 5330 or 5370.

Comprehensive Examination: Written comprehensive examination. *Prerequisite:* Completion of all required courses or permission of the department.

Total: 36 semester hours

Endorsement

Special Education Counseling Endorsement

This plan is primarily for students who have completed the School Counselor's program and wish to obtain the additional endorsement as a counselor for exceptional children.

Admission Requirement: Completion of all requirements in the School Counseling program and three years of teaching experience, at least one of which is in special education.

Program (12 semester hours)

- SPED 5345 Remediation of Learning Disabilities
- SPED 5347 Parents of Exceptional Children
- SPED 5363 Culturally Responsive Interventions for Emotional/Behavioral Disorders
- SPED 5371 Teaching Students with Severe Disabilities

Total: 12 semester hours

A special certification plan must be on file and fee paid to the Certification Office.

Educational Psychology and Counseling (EDPC)

5170 Special Topics in Educational Psychology and Counseling (1-0)

Selected topics for graduate students, teachers, school counselors, and agency counselors in special areas. May be repeated when topic varies. *Prerequisite:* Department approval.

5310 Applied Research Design for Educators (3-0)

Course focuses on the use of qualitative research methods in educational settings which serve diverse and/or special populations. Research design will include descriptive statistics, single-subject and qualitative research methods. *Prerequisite:* Department approval.

5317 Human Growth and Development (3-0)

Descriptive analysis of basic theories, patterns and stages of human physical, social, emotional, moral, intellectual, cognitive, and personality growth and development.

5320 Lifestyle and Career Development (3-0)

An overview of the various theories of career counseling. Emphasis on incorporating an understanding of the goals accomplished by career, vocational, and occupational counseling. The connection between career choice and life style development will be examined. *Prerequisites:* EDPC 5317 and EDPC 5341 each with a grade of "B" or better. EDPC 5317 and EDPC 5341 may be taken concurrently with EDPC 5320.

5321 School Counseling (3-0)

Analysis of the organization and administration of school counseling programs and services, including professional orientation issues. Emphasis on developmental school guidance and counseling in accordance with both national and Texas standards. *Prerequisites:* EDPC 5317 and EDPC 5341 each with a grade of "B" or better.

5322 Community/Agency Counseling (3-0)

Analysis of the organization and administration of community and agency counseling programs and services, including professional orientation issues. *Prerequisites:* EDPC 5317 and EDPC 5341, each with a grade of "B" or better.

5324 Ethical, Legal, and Professional Issues in Counseling (3-0)

A study of ethical, legal and professional issues for counselors in public schools and community agencies. Potential ethical and legal dilemmas are studied to assist students in developing ethical decision-making skills as part of professional practice.

5334 Culturally Responsive Classroom Based Assessment (3-0)

Theory and use of norm and criterion referenced instruments in the classroom, including curriculum based, performance, portfolio and informal assessments. Emphasis will be placed on response to intervention and working with culturally and linguistically diverse students. *Prerequisite:* Department approval.

5335 Principles of Appraisal and Assessment (3-0)

Principles of educational and psychological testing including purposes, methods, and procedures. An emphasis will be placed on analysis, evaluation, and administration of various educational and psychological instruments. *Prerequisites:* EDPC 5317, EDPC 5341, EDPC 5345, and EDPC 5346 each with a grade of "B" or better.

5336 Advanced Educational Appraisal (3-0)

Analysis, evaluation, and administration and interpretation of standardized achievement, diagnostic and adaptive behavior measures. Interpretation and evaluation of results through written educational reports are required. *Prerequisite:* EDPC 5334 with a grade of "B" or better and department approval.

5338 Group Counseling (3-0)

Description of the history, principles, theories, and techniques of group counseling. Emphasis on the open communication process, curative factors, stages of group development, and the role of therapeutic leadership, to include techniques, skills, and styles unique to the group process. Participation in a small group experience is an ungraded requirement for successful course completion. *Prerequisites:* EDPC 5317, EDPC 5341, each with a grade of "B" or better, and department approval.

5339 Techniques of Counseling (3-0)

Focus on the development and effective use of skills and techniques basic to the process of individual counseling as derived from the major theories of counseling.

focus on the development and effective use of skills and techniques basic to the process of individual counseling as derived from the major theories of counseling.
Prerequisites: EDPC 5338 with a grade "B" or better and department approval.

5341 Theories of Counseling (3-0)

Study and analysis of the major affective, cognitive, and behavioral theories and therapeutic approaches to individual counseling. Emphasis on historical perspectives and practical application.

5344 Use and Interpretation of Cognitive Measures (3-0)

Identifies techniques and procedures of standardized administration of verbal and nonverbal cognitive tests. Emphasis on interpretation of results and program recommendations required. *Prerequisite:* EDPC 5334, EDPC 5336, and SPED 5337, each with a grade of "B" or better and department approval.

5345 Abnormal Human Behavior (3-0)

A study of the development of abnormal human behavior patterns and characteristics to include the major mental and personality disorders with emphasis on the symptomatology and/or life circumstances and events described in the various diagnostic categories. *Prerequisites:* EDPC 5317 and EDPC 5341 each with a grade of "B" or better. EDPC 5317 and EDPC 5341 may be taken concurrently with EDPC 5345.

5346 Counseling Multicultural and Diverse Populations (3-0)

A study of societal changes and trends, human roles, societal subgroups, social mores and interactions, and differing life styles. Focuses on socio-cultural characteristics and concerns of subgroups and the application to multicultural counseling. *Prerequisites:* EDPC 5317 and EDPC 5341 each with a grade of "B" or better. EDPC 5317 and EDPC 5341 may be taken concurrently with EDPC 5346.

5348 Application of Assessment for the Delivery of Instruction for "At Risk Students" (3-0)

Pre-internship course. Includes supervised practice of testing procedures, writing full individual evaluations and side by side comparison of federal and state regulations for identifying and serving at risk students in special education. *Prerequisites:* EDPC 5334, EDPC 5336, EDPC 5337 and EDPC 5344 each with a grade of "B" or better and department approval.

5360 Introduction to Marriage and Family Therapy (3-0)

A study of the major theoretical approaches to marriage and family counseling. Emphasis on the individual's role in the family of origin and family of procreation and how family systems approaches to therapy impact each individual within the family. *Prerequisites:* EDPC 5317 and EDPC 5341 each with a grade of "B" or better.

5361 Family Theories (3-0)

This course is a comprehensive exploration of several major theories concerning family interaction. Primary emphasis is placed upon the fundamental concepts of General Systems Theory, The Family Life Cycle, and family processes and their application to marriage and family therapy. The role of theory in empirical investigation, conceptual frameworks and strategies of theory-building in the interdisciplinary study of marriage and family therapy will also be studied. *Prerequisites:* EDPC 5317 and EDPC 5341 each with a grade of "B" or better.

5362 Counseling Children, Adolescents and Their Families (3-0)

A focus on the dynamics, problems, and practical aspects underlying the behavior of children, adolescents and their families; provides a wide variety of intervention and treatment aspects for children, adolescents and their families in therapy. *Prerequisites:* EDPC 5317 and EDPC 5341 each with a grade of "B" or better.

5363 Marital Therapy (3-0)

An introduction to the theories and techniques of marital therapy and other types of therapy with couples. Emphasis will be placed on the processes necessary to identify, assess, and treat various forms of couple interaction. *Prerequisites:* EDPC 5360 with a grade of "B" or better, and department approval.

5364 Family Therapy (3-0)

This course provides students with advanced training assessment and intervention skills related to family therapy. Emphasis will be placed on the student's conceptualization and application of system processes to their own therapeutic approach to family therapy. *Prerequisites:* EDPC 5360 with a grade of "B" or better and department approval.

5365 Directed Individual Study (0-0-3)

Area of study will be designated. May be repeated for credit when topic varies. *Prerequisite:* Department approval.

5370 Special Topics in Educational Psychology and Counseling (3-0)

Selected topics for graduate students, teachers, school counselors, and agency counselors in special areas. May be repeated when topic varies. *Prerequisite:* Department approval.

5371 Counseling Practicum (0-3)

Advanced training in the development of basic counseling skills and interventions in an on-campus laboratory setting to include actual work with clients. Students are required to complete 100 clock hours of supervised experience. To be taken during last semester of formal coursework, immediately preceding enrollment in EDPC 5372. *Prerequisites:* EDPC 5321 or EDPC 5322; EDPC 5324, EDPC 5338, EDPC 5339, EDPC 5360 and EDPC 5362, each with a grade of "B" or better, and department approval.

5372 Counseling Internship I (0-0-3)

Practical application of counseling theories and techniques in a field-based community or school setting. Students are required to complete 300 clock hours of supervised on-site experience. *Prerequisites:* Satisfactory completion of all required coursework (with the exception of EDPC 5373) to include a grade of "S" in EDPC 5371, and department approval. EDPC 5340 and EDPC 5325 may be taken concurrently with EDPC 5372.

department approval. EDPC 5310 and EDPC 5335 may be taken concurrently with EDPC 5372.

5373 Counseling Internship II (0-0-3)

Practical application of counseling theories and techniques in a field-based community or school setting. Students are required to complete 300 clock hours of supervised on-site experience. *Prerequisites:* Satisfactory completion of all required coursework with a grade of "S" in EDPC 5372 and department approval. EDPC 5310 and EDPC 5335 can be taken concurrently with EDPC 5373.

5375 Internship in Educational Diagnostician (0-0-3)

Supervised experience in public schools working with certified diagnosticians. Experiences include: completing comprehensive assessments, preparing written reports of assessments and other required paperwork, attending ARDs and presenting test data to educators and families. Periodic meeting with university faculty to establish progress will be required. *Prerequisites:* Completion of all core and specialization requirements with a grade of "B" or better and department approval.

5398 Thesis (0-0-3)

Initial work on the thesis. *Prerequisite:* Department approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisites:* EDPC 5398 and department approval.

Special Education (SPED)

5320 Special Education: Historical and Legal Basis (3-0)

Emphasis on litigation, legislation, and laws pertaining to definitions of exceptional children including learning and behavior disorders, physical, mental, and sensory handicaps and the exceptionally gifted and talented student.

5321 Topics in Culturally and Linguistically Diverse Education for Learners with Special Needs (3-0)

In-depth exploration of strategies and instructional services for students with disabilities who are from culturally and linguistically diverse backgrounds. Nationally recognized issues and practices for these individuals will be reviewed. *Prerequisites:* SPED 5337 with a grade of "B" or better and department approval.

5322 Teaching Culturally and Linguistically Diverse Learners with Special Needs (3-0)

Focuses on the needs of and teaching strategies for learners with special needs who have limited English proficiency and are from culturally diverse backgrounds. *Prerequisite:* department approval.

5330 Early Intervention for Young Children and Their Families (3-0)

Focuses on recommended intervention strategies for children from birth to eight years of age who have disabilities or who are at risk of having developmental delays; emphasizes typical and atypical development, family involvement, assessment, and natural setting interventions. *Prerequisite:* SPED 5320 with a grade of "B" or better or instructor approval.

5337 Assessment: Disability and Cultural/Linguistic Factors (3-0)

Course content will focus on language acquisition, assessment of cultural variance in educational settings, selection of appropriate norm referenced assessment tools, administration and analysis of selected tests as it applies to students with, or suspected to have, a disability. *Prerequisite:* Department approval.

5340 Learning Theories Across the Lifespan (3-0)

Analysis and application of learning theories, including cognitive, behavioristic, social, and emotional learning processes in human development, with special emphasis on children and adolescents. *Prerequisite:* department approval.

5345 Interventions for Students with High Incidence Disabilities in a Culturally Diverse Society(3-0)

Focuses on the role of the special educator in providing services to students with high incidence disabilities. Incorporates strategies in team building, collaborative planning, and implementation as well as instruction in curricular and instructional modifications. *Prerequisites:* SPED 5320 with a grade of "B" or better and department approval.

5347 Working with Parents of Learners with Special Needs (3-0)

Relevant approaches and techniques for professionals to work with parents of learners with special needs; includes strategies for developing knowledge and skills associated with facilitating child growth by cooperative home-school planning. *Prerequisites:* SPED 5320 with a grade of "B" or better and department approval.

5350 Special Topics in Special Education (3-0)

Selected topics for graduate students and teachers in special areas. May be repeated when topic varies. *Prerequisites:* SPED 5320 with a grade of "B" or better and department approval.

5361 Cultural Principles of Positive Behavioral Support (3-0)

This course focuses on theories and practices for improving social skills for students exhibiting problem behaviors through the application of functional behavior assessment, positive behavioral support, and culturally responsive practices. *Prerequisite:* department approval.

5363 Culturally Responsive Interventions for Emotional/Behavioral

Disorders (3-0)

This course focuses on theories and practices for improving social skills for students exhibiting problem behaviors through the application of functional behavior assessment, positive behavioral support and culturally responsive practices. *Prerequisite:* department approval.

5369 Teaching Reading to Learners with Mild Disabilities (3-0)

Provides information on assessment of learners with mild disabilities who have reading difficulties; includes information on strategies in teaching decoding, word attack, comprehension, and other skills in reading. *Prerequisites:* SPED 5320 with a grade of "B" or better and department approval.

5370 Teaching Secondary Students with Mild Disabilities (3-0)

Focuses on challenges of adolescents with learning problems, including transition to post-secondary settings. *Prerequisites:* SPED 5320 with a grade of "B" or better and department approval.

5371 Teaching Students with Severe Disabilities (3-0)

Characteristics of students with severe disabilities, including assessment, program development, teaching methodology, and design of learning environments; focuses on inclusionary/mainstreaming educational and community settings. *Prerequisite:* SPED 5320 with a grade of "B" or better or department approval.

5373 Teaching Students with Autism (3-0)

Characteristics of young children, elementary, and adolescent severely handicapped students with autism including assessment, program development, teaching methodology, and intervention techniques; includes programming for self-help, motor and language skills, reading, mathematics, and functional academic skills. *Prerequisite:* Twelve graduate semester hours in special education (SPED) or department approval.

5375 Technology, Assistive Tools and Issues of Access (2-1)

Distance learning for K-12 students, both in and out of the traditional school setting. Assistive technology tools and techniques for the classroom teacher, legal issues regarding technology access and equity. *Prerequisites:* EDT 5373 with a grade of "B" or better and department approval (SPED 5375 is the same course as EDT 5375.)

5378 Research and Applications in Special Education (0-0-3)

Designed as a capstone course, this course will require students to conduct research and develop a project relevant to their local community or school with regard to the education of students with special needs. The research project should be suitable for distribution in the schools. *Prerequisites:* Minimum of 27 graduate hours in special education, with average of "B" or better and department approval.





Teacher Education

601 Education Building
(915) 747-5426

tedgrad@utep.edu

<https://academics.utep.edu/tedgrad>

CHAIR: Elaine Hampton

PROFESSORS EMERITI: Lou Ella Burmeister, Norma G. Hernandez, Joe Lars Klingstedt, James Mison

ASSOCIATE PROFESSORS EMERITI: Mary Louise Zanders Aho, John Paul Scarborough\

GRADUATE FACULTY:

PROFESSORS: Ainsa, Bixler-Márquez, Descamps, Huerta-Macias, Hurley, Reinhartz, Tchoshanov, Tinajero

ASSOCIATE PROFESSORS: Casas, Dworin, Godina, González, Hampton, Izquierdo, Luykx, Munter, Rossatto, Seda, Soto Mas

ASSISTANT PROFESSORS: Awalt, Araujo, Carrejo, Cashman, De La Piedra, Esquinca, Giza, Jones, Kephart, Kosheleva, Peregrino, Reyes, Robertson, Ullman

The Teacher Education Department offers graduate programs that provide advanced professional education knowledge and skills for application in school and non-school settings. Students who wish to pursue graduate degrees in Teacher Education may select from two programs: the Master of Arts in Education and the Master of Education. The Master of Arts is designed for students wishing to pursue research and/or continue studies beyond the master's degree level. The Master of Education degree is directed toward mastery of professional education practice. Students pursuing the Master of Education may major in Instructional Specialist or Reading Education.

Admission Requirements

Before admission to the Teacher Education Graduate Program, applicants must comply with the **General Admission Requirements** section of the University's Graduate Catalog. Those applicants whose bachelor degree is in a field other than education will be assigned educational practicum and/or undergraduate course work to serve as leveling experiences in preparation for the master's level educational programs. These leveling experiences will be assigned by the department advisors. Letters of recommendation must be provided. Additional information:

- No more than 6 semester hours of graduate work (with a grade of "B" or better required) may be transferred from another institution.
- Courses taken prior to formal admission into a graduate program cannot be counted toward a graduate degree without the specific recommendation of the departmental committee on graduate studies and approval of the Graduate School.
- Applicants may also be invited to an interview.
- For more information about admission, please visit the Department's Graduate Program website at <https://academics.utep.edu/tedgrad> and read the College of Education and Graduate School sections of the Graduate Catalog.

Program Advising

- Students are advised to view the information on the Department website at <https://academics.utep.edu/tedgrad> or contact the Department for more specific information regarding admission, advising, degree options and requirements, and comprehensive exams.
- Students will be assigned a graduate faculty advisor at the time of admission to the program.
- Students should maintain a continuing advising relationship with the faculty advisor which includes preparing and updating their degree plan, making course selections, and requesting a comprehensive examination or thesis defense.

Degree Programs

1. Master of Arts in Education

The Master of Arts in Education is a college-wide degree. It is designed to prepare students to pursue research and to continue studies beyond the master's degree. Students in the Master of Arts in Education submit a thesis and do not take a comprehensive exam. The Master of Arts involves:

- A plan of study with 24 semester hours of course work
- Thesis proposal describing research and approved by the committee
- Thesis research for 6 semester hours
- Successful defense of the thesis to faculty committee

Students work with their Graduate Advisor to develop the plan of study. They select a committee of at least three professors (one of whom is outside the department) to guide the thesis study. The 30 semester hours of course work and thesis described above must be completed within 6 years.

2. Master of Education Instructional Specialist

This program requires 36 semester hours, including at least 27 semester hours at the graduate level. Each student will have a Graduate Faculty Advisor to assist in developing the degree plan. All upper-division undergraduate course work proposed for inclusion in this graduate degree must be recommended for approval by the Graduate Faculty Advisor.

Students may choose to concentrate course work in the areas of bilingual education, early childhood education, educational technology, math education, science education or reading education. Students who wish to focus in other subject areas may select courses from other UTEP departments with Graduate Faculty approval.

All Master of Education Instructional Specialist plans include the following:

- Professional Development Core: TED 5300, 5301, 5313, and 5304
- Specialization Area: At least 12 semester hours of graduate level courses in a subject area for which the candidate has prior certification or in a subject area approved by the

Graduate Faculty Advisor

- Resource Area: 6 semester hours in courses approved for graduate credit, which provide support for the academic specialization area or for professional development
- Electives: 6 semester hours in courses approved for graduate credit

3. Master of Education Reading Education

This program major follows State Board of Educator Certification guidelines and leads to the Professional All-Levels Reading Specialist Certificate. It includes the following:

- Professional Development: TED 5300, 5301, 5313, and 5304

- Reading Specialization: At least 12 semester hours of graduate-level courses in reading which must include RED 5341 and RED 5347
- Resource Area: 3 semester hours of Linguistics and 3 semester hours of Multicultural Concepts at the graduate level

Students holding a Secondary Certificate/License will need six semester hours of graduate-level courses with Early Childhood or Middle Grades Education focus. Students holding an Early Childhood Certificate/License will also need six semester hours of graduate-level courses with Secondary or Middle Grades Education focus.

More specific information on all Teacher Education Graduate Programs is available at <https://academics.utep.edu/tedgrad>.

Master of Education Program Requirements

Students pursuing the Master of Education Instructional Specialist and Master of Education Reading Specialist must submit a scholarly paper and pass a comprehensive written exam in addition to successful completion of their coursework.

Scholarly Paper

All Master of Education degree candidates will be expected to write scholarly papers in their graduate courses. The student selects one of these course papers which, upon approval by the professor, will be presented to the Teacher Education Graduate program for inclusion in the student file. The scholarly paper reviews relevant research and cites and references the pertinent scholars using the APA recommended format.

Final Comprehensive Examination

During the final semester course work in the TED master's program (Instructional Specialist or Reading Education degrees), the student will take a written comprehensive examination. The purpose is to synthesize the coursework showing an understanding of a master level teacher educator. Early in this final semester, the graduate faculty facilitates an orientation to the comprehensive exam to provide more specific information about the examination content and process. The following provides important details about the comprehensive exam.

- During the final semester of coursework, graduate students will submit an Application for Comprehensive Examination to the TED Graduate Advising Office and will apply for graduation with the University Graduate School office.
- The exam is given on a Saturday near the end of the semester in which the student is enrolled in her/his final courses.
- The questions for this examination are prepared by graduate faculty. Students respond to one question from the professional development core courses and one question from the area of specialization.
- Comprehensive Exams are not offered in the summer. However, a student may take courses in the summer after taking the exam in the spring. It is recommended that students take no more than one course in the same semester as the comprehensive exam. It is also recommended that students take no more than two courses in the summer after the comprehensive exam.

Master Teacher Certifications

The Teacher Education Department provides preparation course work for Texas Master Teacher Certification programs. These certification programs were developed as part of the Texas Master Teacher Initiatives (TE²MT), which offer educators assistance to improve student performance in the discipline. The certificates were designed to prepare teachers to teach in critical areas at the elementary, middle, or high school level and to mentor, coach, and consult with other teachers in these areas as well. The Master Certification programs are:

- Master Mathematics Teacher (MMT)
- Master Reading Teacher (MRT)
- Master Science Teacher (MST)
- Master Technology Teacher (MTT)

The Teacher Education Department offers the coursework to prepare teachers for Texas Master Teacher certification. This course work ranges from 15-24 hours of graduate level courses designed specifically to meet the state standards. The courses taken for the MMT, MRT, MST, or MTT certification may, if all graduate school requirements are met, be applied toward one of the Master's degrees in Education. Students may enroll in the Master Teacher certification programs at UTEP at any time. *State certification* for one of the master teacher programs requires three years teaching experience, successful completion of the master teacher program, and a passing score on the appropriate Texas Master Teacher exam.

More specific information on all Teacher Education Graduate Programs is available at <https://academics.utep.edu/tedgrad>.

Teacher Certification

Please note that a degree program is not the same as a certificate program. This catalog does not include information on teacher certification requirements. The College of Education Certification Office and the Graduate Advisor of the department can provide more information in this area.

Courses included in a program for a first teaching certificate typically are not applied toward a graduate degree. Courses included in a program for advanced certificates may be applied toward a graduate degree, and most can be combined with a graduate degree program.

Bilingual Education (BED)

5330 Current Topics in Bilingual/ESL (3-0)

An exploration of contemporary issues related to research and practice in the field of Bilingual/ESL.

5331 Survey Issues in Bilingual and Second Language Education (3-0)

Focus on the discourse of diverse paradigms in Bilingual/ESL Education. Includes discussion of current pedagogical, theoretical, historical, legislative, and other issues in the field. Identification of program models in Bilingual/ESL Education, including their philosophical foundations, instructional frameworks, and the planning and design of program evaluation.

5332 Literacy Development in Spanish (3-0)

Focuses on the critical components in literacy development with a focus on the Spanish language and its conventions. Includes discussions of reading pedagogies and their historical foundations in various Spanish-speaking countries, as well as the integration of bilingual/multicultural literature throughout the curriculum. Course taught in Spanish.

5334 Teaching Content in Spanish (3-0)

Development of academic discourse in Spanish in the areas of mathematics, science, social studies, and language arts. Examines the state curriculum standards as well

Development of academic discourse in Spanish in the areas of mathematics, science, social studies, and language arts. Examines the state curriculum standards as well as the professional standards in each of the specializations. Course taught in Spanish.

5336 Literacy/Biliteracy Development (3-0)

Identification of principles, problems, and issues of primary and second language acquisition, specifically the relationship between the development of these languages, to facilitate and promote literacy/biliteracy.

5337 Mentoring for Literacy Educators (3-0)

Development of competencies necessary to mentor, coach, and consult with the school community to develop, implement, and mentor high-quality literacy/biliteracy program; provide professional development for colleagues; and make decisions based on research evidence.

5343 Sheltered English Instruction for Educators (3-0)

Explores academic language socialization with Bilingual/ESL students. Focus is on academic and cognitive development through the teaching of subject matter via a second language. Examines theory and instructional approaches that can enhance learning for non-native speakers of English.

5348 Issues in Adult Literacy (3-0)

Exploration of issues in the field of adult literacy and biliteracy as relevant to diverse educational contexts. BED 5348 is the same course as RED 5348.

Early Childhood Education (ECED)

5350 Current Topics in Early Childhood Education (3-0)

Development of competencies necessary to deal effectively with early childhood instruction; includes curriculum, concepts, teaching strategies, and skills necessary to integrate content and teaching strategies. May be repeated for credit when topic varies.

5351 Trends in Early Childhood Education (3-0)

Research related to philosophies, objectives, and practices in early childhood education, including analysis through comparison and contrast of preschool programs, plus implications for designing such programs based on research and evaluation.

5352 Seminar in Early Childhood Curriculum (3-0)

Curriculum development for the early childhood teacher, which includes program design, activity planning, examination and construction of materials, and teaching and evaluation techniques.

5353 Development of Literacy Skills, Preschool to Grade 3 (3-0)

Emergent reading and writing behaviors in preschoolers; growth of reading and writing, kindergarten to grade three; attention to linguistically different and second-language learners, review of relevant research.

5354 Development of Mathematics and Science Foundations, Preschool to Grade 3 (3-0)

Preschool awareness of quantitative and scientific principles in the environment as a foundation for concept growth.

Education Career and Technology (EDCT)

5300 Instructional Design, Delivery and Assessment (3-2)

Basic principles of curriculum planning, instruction, and assessment in career and technical education settings, including methods of instruction for English language learners.

5301 Instructional Management, Safety and Relationships (3-2)

Management, safety, relationships, professional responsibilities and professional development for the career and technical educator.

5303 Instructional Coordination, Guidance and Technology for CATE (3-2)

Focus on fundamentals of establishing and maintaining an effective cooperative education program at the high school level. Federal and State Child Labor laws will be studied in relationship to appropriate placements, supervision, and assessment of on-the-job training for youth. Principles and practices of career and technology guidance will be covered as they pertain to establishing occupations orientation programs and developing student career pathways.

5304 History and Philosophy of Career and Technology Education (3-0)

An overview of the historical foundations, career-based philosophy and Federal legislation of career and technology.

5305 Teaching and Learning for Health Science Technology Teachers (3-2)

Methods and materials for teaching and learning the concepts of wellness, fundamentals of disease control, safety, roles of health care workers, technology, and the function of diagnostic, informational, and environmental systems of health care.

5306 Teaching and Learning for Business Education (3-0)

An overview of the knowledge and skill standards in Business and Marketing education. Emphasis on developing lesson plans, cooperative education, student labor laws and student organizations.

5308 Career and Technology Facility Development (3-0)

In-depth exploration of standards and designs for high tech laboratory environments. Strategies for development of long-range flexible curriculum and facility development.

5309 Student Leadership Development in Career and Technology Education

(3-0)

Comprehensive study of information regarding activities and responsibilities of the career and technology student organization advisor. Decision-making methodologies and student interactions as they relate to leadership developments will be emphasized.

5310 Techniques of Career and Technology Cooperative Coordination (3-0)

In-depth exploration of problems, procedures, techniques in the operation of cooperative education. Assessment and verification of work-based techniques, tech-prep programs, and child labor laws will be covered.

5311 Career and Technology Guidance and Placement (3-0)

Comprehensive study of careers available through career and technology education, including methods of student identification, placement and follow-up.

5340 Current Topics in Career and Technology Education (3-2)

An examination of new trends and issues for career and technology teachers impacting the current transition from a mainly manufacturing-based workforce to a service-oriented workforce. Focus will be new ways of improving the teaching and learning process in career and technology education.

5344 Seminar in Career and Technology Education (3-2)

Course is designed for career and technology education students to read, study, and research pertinent emerging content in CATE. Students will choose topics of vital interest to the improvement of educational performance in all aspects of the career and technology curriculum.

Educational Technology (EDT)

5319 Graduate Workshop in Educational Technology (2-1)

Studies in a designated area of Educational Technology. May be repeated for credit when topic varies.

5370 Integration of Curriculum and Educational Technology (3-0)

Integration of curriculum and educational technology in the areas of Language Arts, Social Studies, and Math and Science; with emphasis on telecommunications, multimedia applications, and emerging technologies. May be repeated for credit when topic varies.

5372 Web Tools for the Constructivist Classroom (2-1)

Focus on web communication tools and production of web-based content in support of constructivist EC-12 classroom learning. Creation and implementation of web content as an instructional tool, a publishing venue for student work, and information source for parents. Portfolio development and peer mentoring strategies are addressed.

5373 Advanced Productivity Technologies for the Classroom (2-1)

Focus on curriculum strategies that utilize word processing, presentation programs, and spreadsheets for the EC-12 classroom; development and use of databases; extended web page creation integrating graphics, web-page scripts, and file transfer. Creation and implementation of online collaborative projects. Continued portfolio development and peer mentoring experiences.

5374 Pedagogy in the Technology-rich Classroom (2-1)

Develop teacher knowledge and skill in using multimedia authoring programs; use of video editing, sound editing, and image editing; use of online discussion boards. Selection and use of appropriate technology-enhanced assessments, continued portfolio development, and peer mentoring experiences.

Prerequisite: EDT 5373 with a grade of "B" or better.

5375 Technology, Assistive Tools and Issues of Access (2-1)

Distance Learning for EC-12 students, both in and out of the traditional school setting. Assistive technology tools and techniques for the classroom teacher. Legal issues regarding technology access and equity. *Prerequisite:* EDT 5373 with a grade of "B" or better. (EDT 5375 is the same course as SPED 5375.)

5376 Assessing, Planning, and Implementing Technology Programs in EC-12

(2-1)

Focus on real educational settings: Assessing and evaluating an educational institution's current technology status; developing a technology plan; and building a budget with timelines for implementation.

5396 Independent Graduate Study in Educational Technology (0-0-3)

Studies in an area of Educational Technology approved by a sponsoring professor. May be repeated for credit when topic varies.

Gifted Teacher Education (GTED)

5301 Introduction to Gifted Education (3-0)

Nature and Needs; Identification and Assessment; Social and Emotional Needs; Creativity and Instructional Strategies; and Differentiating the Curriculum of Gifted and Talented Students. This course will provide students the opportunity to examine various plans for the education of gifted/talented students; historical, ethical, legal and fundamental issues with relation to current practices to serve culturally and linguistically diverse gifted students.

5302 Identification, Assessment and Program Options in Gifted Education (3-0)

Focus on variety of techniques used to identify gifted students, to include culturally and linguistically diverse students. Emphasis on identifying giftedness and screening tools, and proper program options to serve these students. A variety of formal and informal tools will be examined. Focus on identifying, assessing and placement. Review of program planning and current models. *Prerequisites:* GTED 5301 with a grade of "B" or better and department approval.

5303 Methods and Curriculum Differentiation for Teaching Gifted Learners (3-0)

Focus on curriculum and instructional strategies for teaching gifted students. Course includes curriculum differentiation, instructional process, student products, and learning environments. Models of curriculum for gifted students as well as differentiated and parallel curriculum/program components are considered and applied across content areas. *Prerequisites:* GTED 5301 with a grade of "B" or better and department approval.

5304 Research Trends in Gifted and Talented Education (3-0)

An exploration of contemporary issues and trends as related to research and practice in the field of Gifted and Talented Education. Topics may vary from one semester to another. *Prerequisites:* GTED 5301 with a grade of "B" or better and department approval.

5305 Practicum in Gifted and Talented Education (0-0-3)

Design, implementation and evaluation of instructional programs and classroom organization procedures through supervised practicum experience in programs for gifted and talented students. The practicum requires completion of supervised experience in addressing, responding to, and the demonstration of professional competencies in the gifted and talented education setting and the development of a research project on any of these areas related to gifted and talented education. *Prerequisites:* GTED 5304 with a grade of "B" or better and department approval.

Mathematics Education (MTED)

5300 Mentoring and Leadership in Mathematics Education (3-0)

Provide students with knowledge of mentoring theories and research, which will assist them in facilitating appropriate scientific research-based mathematics education practices through cognitive coaching, collaboration with education stakeholders, consulting with colleagues, and participating in professional development for mathematics educators.

5318 Current Topics in Mathematics Education (3-0)

Develops competencies necessary to deal effectively with mathematics instruction; includes curriculum, concepts, teaching strategies, and skills necessary to integrate content and teaching strategies. May be repeated for credit when topic varies.

5320 Research-Based Practices in Mathematics Classroom (3-0)

Course focuses on what teachers can learn from mathematics education research and how to bridge research and everyday mathematics classroom. Students develop a conceptual discourse on research related to teaching, learning, curriculum, and assessment in school mathematics.

5322 Pedagogical Content Knowledge in Teaching Mathematics (3-0)

Course topics include (but are not limited to) the following main content domains of school mathematics and their effective teaching and learning: Development of Quantitative Reasoning; Fostering Algebraic Thinking; Conceptual Foundations of Calculus; Development of Geometric Thinking.

5324 Authentic Assessment in Mathematics Classroom (3-0)

Authentic and performance-based assessment practices in mathematics classroom; use of instruments such as rubrics, portfolios, and individual and group projects as sources of assessment.

5326 Cultural History, Epistemology, and Pedagogy of Mathematics (3-0)

The course explores critical issues of the evolution and development of fundamental mathematical ideas from a cultural-historical perspective as well as implications for the teaching and learning of mathematics based on this perspective. The courses will also examine current topics in multicultural mathematics education and ethnomathematics.

Reading Education (RED)

5340 Current Topics in Reading Education (3-0)

Opportunity to develop competencies necessary to deal effectively with reading instruction; includes curriculum, concepts, teaching strategies, and skills necessary to integrate content and teaching strategies. May be repeated for credit when topic varies.

5341 Assessment in the Teaching of Reading (3-0)

Standardized and informal materials and techniques of diagnosing the reading strengths and weaknesses of individuals and groups, techniques and materials for building specific reading abilities, and methods of individualizing instruction and grouping according to student needs and interests. *Prerequisite:* RED 3340 or RED 3342.

5342 Content Literacy (3-0)

Methods and materials for developing maturity in reading and study skills, especially in the content areas from K-12. Special emphasis is given to the development of interest, the matching of students to proper materials, and instructional techniques for integrating the teaching of skills with the teaching of content.

5343 Psychology of Reading (3-0)

Psychological and linguistic foundations of the reading processes of beginning and skilled readers; special emphasis on problems of culturally different children, comprehension skills, and analysis of relevant research.

5344 Seminar in Reading (3-0)

In-depth exploration of ways of developing higher-level cognitive, affective, psychomotor, and psycholinguistic abilities of students through the use of printed materials and other media. Individual and/or group creative projects and research findings will be shared.

5347 Clinical Reading Laboratory Experience (2-1)

Actual laboratory experience for application of concepts, media, and evaluation to meet the needs of disabled readers. May be repeated for credit when topic varies. *Prerequisite:* RED 4341 or RED 5341 or RED 5346.

5348 Issues in Adult Literacy (3-0)

Exploration of issues in the field of adult literacy and biliteracy as relevant to diverse educational contexts. RED 5348 is the same course as BED 5348.

5349 Literacy Education Internship (1.5-3)

An internship served with university faculty or a team of university and clinical faculty in an elementary, middle, secondary, community college, or university setting. Course content and requirements will be contracted on an individual basis.

5350 Mentoring for Literacy Educators (3-0)

Development of competencies necessary to mentor, coach, and consult with the school community to develop, implement, and mentor high-quality literacy/bi-literacy program; provide professional development for colleagues; and make decisions based on research evidence.

5351 Literacy/Biliteracy Development (3-0)

Identification of principles, problems, and issues of primary and second language acquisition, specifically the relationship between the development of these languages, to facilitate and promote literacy/biliteracy.

5352 Supervision and Implementation of Reading Program (3-0)

This course emphasizes the organization and supervision of reading programs. Students will examine the processes of leadership, staff development, grant writing, community outreach and action research from the perspective of the reading professional.

5353 Language Study for Literacy Educators (3-0)

Students will be introduced to Teaching and Learning theories and practices as they relate to broad areas of language study for literacy educators. Focus on construction of meaning, student-centered responses to reading, print and oral language development, based on the convergences of literacy research.

Secondary Education (SCED)

5326 Curriculum in the Secondary School (3-0)

Curriculum in subject areas in the secondary school, and the development of plans and procedures for instruction.

Socio Cultural Foundations of Education (SCFE)

5300 Current Topics and Issues in Social Studies Education (3-0)

This course is designed for social studies educators who seek further understanding of the significant foci and issues in the curriculum that influence the teaching of social studies content, resources, and methodology.

5320 Socio Cultural Foundations of Education (3-0)

Explores the social, historical and philosophical foundations of formal education, as well as how current discourses and teachers' and students' subjectivities shape the everyday praxis of schooling. Critical perspectives from various theoretical traditions are brought to bear on the question of how to transform schools into institutions that foster democratic pedagogies, social justice, and the creation of an active, participatory citizenry. Students will learn to interrogate and deconstruct popular assumptions around schooling, learning, race, and "ability," as they work toward deepening the liberatory potential of their own pedagogical practice.

5321 Reinventing Critical Pedagogy (3-0)

This course is designed to dialectically construct knowledge related to social justice and emancipatory critical pedagogies. Participants learn through "participatory-reflective inquiry, and action research" to become transformative intellectual leaders rather than mere transmitters of knowledge. It promotes the identification of oppressive hegemonic social structures that produce alienation and the rethinking of educational praxis embedded in possibilities of inclusion that reinvent democratic alternatives. High priority is given to the development of critical thinking and the reinvention of democratic alternatives in order to facilitate the study of educational issues with a well informed critical eye.

5322 Economics of U.S. Schooling (3-0)

This course will examine the changing economic context of K-12 education in the U.S., including policies around school financing, the increasing presence of private corporations in public schools, and proposals to channel public resources to private schools. Students will gain a deeper, historically-informed understanding of how public education fits within larger social structures. By examining the important socioeconomic changes affecting schools, students will reflect on the social aims of schooling, and what such changes imply for schools' role in the expansion of democratic practice and the maintenance of a vibrant public sphere.

5323 Paulo Freire and Social Justice (3-0)

Designed to engage the thinking of Paulo Freire, whose work is a profound source of inspiration for anti-oppressive and revolutionary teaching around the world, the course will examine the possibilities and limitations of Freirean pedagogy for helping people name and change social and educational realities premised upon inequality. It looks at the work of those who apply, extend, and critique the Freirean perspective and offers a unique transdisciplinary, multidisciplinary, and interdisciplinary approach.

5324 Student Engagement in Learning (3-0)

This course examines the ways in which the social curriculum impacts students' academic performance in the classroom. Examining the variables that foster student engagement and disengagement in learning are necessary in order to help educators develop effective classroom management practices. Topics include racial and ethnic diversity, oppositional culture, students at risk, the school culture, teacher attitudes, and the social and emotional variables that affect student learning. The course provides practical classroom applications for engaging students to learn in K-12.

Science Education (SIED)

5321 Science Tools, Standards, Technology, Safety, and Ethics (3-0)

Integrated, science-technology thematic learning. Develops understanding of important science teacher resources, basic science education and lab tools, state and national standards for science teaching, curriculum alignment, laboratory and classroom safety, and professional ethics for science educators.

5323 Societal Context of Science Education (3-0)

Develops and applies understanding of field, community, and cultural resources and develop family and community partnerships in a relevant science context. Students develop a learning unit based on instructional models such as the learning cycle lesson design and the 5-E model. Explores historical perspectives of science and the role of science in societal decisions. Includes research-based principles in science learning and technology integration.

5325 Inquiry Science Education in Bilingual Settings (3-0)

Provides a review of basic content in physical science, biology and chemistry. The content will be imbedded in activities that model the inquiry approach to teaching and learning with strategies to ensure content and language development in bilingual communities. Students learn to develop curriculum using instructional models such as sheltered instruction, the learning cycle, the 5-E model, and constructivism. Content directly related to the essential elements in the elementary, middle, and high school science curricula in Texas.

5327 Chemistry Education in a Feminist and Multicultural Context (3-0)

Chemistry learning experiences in a relevant cultural context. A conceptual understanding of basic chemistry content including the impact of chemistry in daily life. Develops competencies necessary to provide multicultural education instruction and inclusive pedagogy and the understanding of social, economic, and political influences on access issues in science education for all students. Includes environmental chemistry labs and an environment action project.

5329 MST Leadership Practicum (3-0)

Assessment and verification of the competencies in a practicum situation as required for MST Certificate. The students facilitate standards-based science instruction by: communicating and collaborating with educational stakeholders; exhibiting leadership, mentoring, coaching, and consulting with colleagues; facilitating professional development; and making decisions based on research. Includes a field practicum experience mentoring a new science teacher.

Teacher Education (TED)

5119 Graduate Workshop in Education (1-0)

Studies in a designated area. May be repeated for credit when topic varies.

5300 Research for the Classroom Teacher (3-0)

Research methodology to address the problems and needs of classroom teachers. Emphasis on interpreting professional literature and practitioner research in educational settings. *Prerequisite:* TED 5304 with a grade of "B" or better.

5301 Learning Contexts and Curriculum (3-0)

Examination of the theoretical frameworks and broad definitions of curricula, processes of curriculum alignment, pedagogy and assessment, State standards, curricular resources, curriculum integration, learning theory and lesson planning.

5302 Managing the Student-centered Classroom (3-0)

Theory and practice on how to manage instruction and relationships in a student-centered classroom. Emphasis on classrooms as communities of learning and on communication skills.

5303 Authentic and Performance Assessment in the Classroom (3-0)

Authentic and performance assessment practices in the constructivist classroom; use of instruments, such as rubrics, portfolios and individual and group projects as sources of assessment.

5304 Scholarly Writing for Educators (3-0)

Writing scholarly papers using archival research, documented sources, and electronic databases. Working closely with the instructor and a professor in their area of study, students produce publication quality papers. The course covers issues of conceptualization, argumentation and evidence, and citation and referencing. It also deals with style, audience, organization, and mechanics, and relies heavily on peer-editing and review.

5306 Inclusive Classroom/Learning Environments (3-0)

Emphasis will be on learning theory, cultural/language issues that impact learning, modifications and best practice, classroom arrangements, curriculum variations, grouping students, collaborative learning, and classroom assessment.

5313 Diversity in Educational Settings (3-0)

Exploration of the social context of education and teaching in the pluralistic society. Examination of schools and society in relation to historical and contemporary issues of diversity.

5314 Current Topics in Science Education (3-0)

Opportunity to develop competencies necessary to deal effectively with science instruction; includes curriculum, concepts, teaching strategies, and skills necessary to integrate content and teaching strategies. May be repeated for credit when topic varies.

5319 Graduate Workshop in Education (3-0)

Studies in a designated area. May be repeated for credit when topic varies.

5322 Field Resources in Science Education (3-0)

Directed observation of selected field resources. Particular emphasis will be placed on the acquisition of knowledge that directly relates to the essential elements in the elementary, middle, and high school science curricula in Texas.

5324 Inclusive Science Education (3-0)

Explores theories that inform current understanding of equity and learning in science education. Examines issues to enhance science persistence.

5396 Independent Graduate Studies (0-0-3)

Studies in an area of the student's choice that has been approved by the sponsoring professor. May be repeated for credit when topic varies. *Prerequisite:* Department approval.

5397 Practicum for Master Teachers (0-0-11.5)

Assessment and verification of the competencies in a practicum situation as required for the Master Teacher Certificate.

5398 Thesis (0-0-3)

Initial work on the thesis. *Prerequisite:* Permission of Graduate Advisor of Program.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisites:* TED 5398 and permission of Graduate Advisor of Program.



COLLEGE OF ENGINEERING

- [College of Engineering](#)
- [Civil Engineering](#)
- [Computer Science](#)
- [Electrical and Computer Engineering](#)
- [Industrial Engineering](#)
- [Mechanical Engineering](#)
- [Metallurgical and Materials Engineering](#)





College of Engineering

The University of Texas at El Paso has a long-standing commitment to quality engineering education. Today the College of Engineering strives to educate engineers to formulate and solve the technical problems of today and tomorrow.

At the graduate level, the College fulfills its mission by offering graduate degree programs in all of its departments. Master of Science degrees are available in Civil Engineering, Computer Engineering, Computer Science, Electrical Engineering, Environmental Engineering, Industrial Engineering, Manufacturing Engineering, Mechanical Engineering, and Metallurgical and Materials Engineering. In addition to these programs, students may pursue an undesignated Master of Science in Engineering, with concentrations in a number of areas, a Master of Engineering degree in Environmental Engineering, or a Master of Information Technology. The College offers a Ph.D. degree in Civil Engineering, a Ph.D. degree in Electrical and Computer Engineering, and a Ph.D. degree in Computer Science. Multi-disciplinary Ph.D. degrees are also awarded in Materials Science and Engineering and Environmental Science and Engineering and their program descriptions are provided under Interdisciplinary Doctoral Programs.

Doctor of Philosophy Degree in Electrical and Computer Engineering

The Ph.D. in Electrical and Computer Engineering is a program designed to prepare electrical and computer engineers for a meaningful and successful research career in academia, government or industry. The program emphasizes the advancement of knowledge in theoretical and applied electrical and computing engineering that leads to innovation in this and related fields.

Doctor of Philosophy in Computer Science

The Ph.D. in Computer Science is a program designed to prepare scientists and engineers to advance the rapidly growing fields of hardware, software, and systems integration, and also to develop the underlying theories and models to underpin further advances. The program emphasizes a thorough grounding in the fundamental principles and practices of computer science, together with the skills necessary to apply them effectively and professionally in a wide range of disciplinary and social contexts.

Doctor of Philosophy in Environmental Science and Engineering

The Ph.D. in Environmental Science and Engineering is an interdisciplinary doctoral program, coordinated by the Center for Environmental Resource Management (CERM), to prepare scientists and engineers to address the environmental issues facing this region, the nation, and the world. The program emphasizes a cross-disciplinary perspective to the understanding, management, and remediation of human impacts on the environment, with a particular focus on problems of the Southwest Border region. For information regarding admission and degree requirements, students should consult the section for Interdisciplinary Studies after the College of Science section.

Doctor of Philosophy in Materials Science and Engineering

The Ph.D. in Materials Science and Engineering is an interdisciplinary doctoral program, coordinated by the Materials Research and Technology Institute (MRTI), to prepare scientists and engineers to address the rapidly expanding opportunities and problems created by emerging materials-related industries. The program emphasizes a cross-disciplinary perspective of this vital field with a range of skills linking materials, structure, properties, synthesis and processing, and performance. For information regarding admission and degree requirements, students should consult the section for Interdisciplinary Studies after the College of Science section.

Requirements for Admission into all Master's Degree Programs in Engineering

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education in a foreign institution
2. Undergraduate degree in the same or a related field or a minimum of 15 semester hours of upper-division course work in engineering
3. Submission of official Graduate Record Examination (GRE) scores
4. TOEFL score of 213/550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S. or other English speaking institution
5. Depending upon selected areas of concentration, students may need to complete deficiencies in undergraduate course work

Master of Science in Engineering

The College of Engineering offers an interdisciplinary Master of Science degree. The program is administered by the Office of the Dean of Engineering.

Requirements for Admission

Applicants are expected to have a Bachelor of Science in an engineering or related physical sciences field or the equivalent. Depending upon selected area of concentration, students may need to complete deficiency undergraduate course work.

Requirements for Graduate Degree

The MS in Engineering is a 33 semester hour non-thesis program. Course work includes:

1. 18 semester hours in the major concentration field of engineering
2. 12 semester hours in a second concentration field
3. 3 semester hours of a graduate project

No more than 6 hours of upper-division undergraduate course work may be counted toward the degree requirements. Course work and direction of the project, and

administration of a final exam are coordinated by a committee of no less than three graduate faculty members. The chair of the committee would normally be a member of the graduate engineering faculty.

Major areas include Biomedical, Civil, Computer, Electrical, Environmental, Industrial, Manufacturing, Mechanical, Metallurgical, and Materials Engineering, and Systems Engineering.

Other possible areas of concentration include Business Management, Computer Science, Economics, Information Technology, Mathematics, Physics, Chemistry, Biology, Geology, or others approved by the student's committee.





Civil Engineering

201B Engineering Science
(915) 747-5464
civilengineering@utep.edu

PROGRAM CHAIRPERSON: Wen-Whai Li

GRADUATE FACULTY: Carrasco, Cheu, Ferregut, Gharaibeh, Li, Nazarian, Oey, Osegueda, Shokouhi, Tandon, Tarquin, Turner, Walton

Civil Engineering offers the degrees of Ph.D. in Civil Engineering, Master of Science in Civil Engineering (MS), Master of Science in Environmental Engineering (MSEnE), Master of Engineering in Environmental Engineering (MEEnE), and an undesignated Master of Science with a major in Engineering.

Requirements for Admission

Students should consult the Introduction to the College of Engineering section for information on general admission requirements.

Doctor of Philosophy Degree in Civil Engineering

Educational Objectives

The objectives of the program are (1) to educate engineers, researchers, and scholar/teachers who will address the needs of 21st-century engineering infrastructure research and teaching, especially for the border region and the state of Texas; (2) to educate professionals who will not only be technically competent in emerging technologies, but also trained to address the long-term challenges to the transportation, environmental and urban infrastructure from global and systemic points of view. Graduates will have the ability to make meaningful decisions considering technical feasibility, monetary constraints, public policy issues, and a myriad of potential environmental consequences; and (3) to educate future educators, scholars, and professionals who are sensitive to the complex implications for infrastructure development and education of international boundaries, bi-national relationships, and shifting demographics.

Graduates from the program will have the technical background to contribute to improvements in the reliability, maintenance, and management of infrastructure systems. Graduates will be able to undertake integrated programs of research, education and technology transfer to produce new knowledge that will enhance the performance of transportation, environmental, and urban infrastructures.

Requirements for Admission

Applicants must have completed a bachelor's or master's degree in civil engineering or a closely related discipline. The admissions committee evaluates the preparation of non-civil engineering applicants and recommends leveling courses as appropriate. These courses are not part of the Ph.D. degree plan. Applicants who do not have degrees from English medium universities are required to submit scores on the Test of English as a Foreign Language (TOEFL). A score of 213/550 is required for admission and 250/600 for appointment to a teaching assistantship.

Recommendations for admission are made on the basis of the following:

- Grade point average in upper division or graduate work as appropriate.
- Scores on the verbal and quantitative section of the GRE
- Research and professional commitment and interest as demonstrated by a personal statement, letters of recommendation, and other materials as available
- Letters of recommendation.

Students admitted at the bachelor's level may elect to complete a master's degree in Civil Engineering, but will be required to complete all of the requirements of the degree as indicated in this catalog.

Students admitted with a master's degree or master's course work may request to the admissions committee that up to 24 semester credit hours (taken at the graduate level with a grade of "B" or better) be applied to the Ph.D. degree plan. Credit hours earned in research, thesis, and independent study courses may not be applied.

Requirements for Degree

Each student must complete at least 72 credit hours beyond the bachelor's degree or at least 48 hours beyond the master's degree. Each student is expected to have a core knowledge in the key areas in the field. The program is designed so that degree plans will be developed individually beyond that core to reflect a student's background and research interests.

Students in the program are required to complete 4 core courses (12 hours):

| | | |
|----|------|--|
| CE | 6303 | Engineering Analysis I |
| CE | 6332 | Modern Methods of Engineering Computations |
| CE | 6301 | Infrastructure Management |
| CE | 6306 | Infrastructure Engineering |

Students are required to complete prescribed electives in three categories

General electives: 4 courses (12 hours) chosen from the following:

| | | |
|------|------|--|
| CE | 5307 | Theory of Finite Element Analysis |
| CE | 5310 | Risk and Reliability Analyses of Engineering Systems |
| CE | 5324 | Construction Management |
| CE | 5390 | Special Topics in Civil Engineering |
| GEOP | 5352 | Geophysical Inverse Theory |
| GEOP | 5354 | Seismology |

| | | |
|------|------|---|
| GEOP | 5362 | Reflection Seismic Data Interpretation |
| GEOP | 5460 | Geophysical Applications of Digital Signal Processing |
| MATH | 5311 | Applied Mathematics |
| MATH | 5343 | Numerical Solution to PDE |
| MECH | 5312 | Advanced Mechanics of Materials II |
| MECH | 5318 | Advanced Dynamics |

Other appropriate course may be selected with the approval of the advisor and program director.

Management elective: 1 course (3 hours) chosen from the following:

| | | |
|------|------|--|
| CIS | 5311 | Management Information Systems Theory and Practice |
| CIS | 5313 | Strategic Information Systems |
| CIS | 5340 | Electronic Commerce in Business |
| ECON | 5304 | Business Economics |
| ESE | 6301 | Environmental Law and Policy |
| FIN | 5311 | Financial Management |
| POLS | 5359 | Seminar in Regional and Urban Planning |
| POLS | 5364 | Seminar in Public Policy Analysis |

Other courses may be elected to fulfill this requirement as recommended by the advisor and program director.

Technical electives: 5 courses (15 hours) chosen from the civil engineering graduate course inventory. Students develop their specific degree plans with the advice and approval of the advisor and program director and they may take other engineering, science, or business courses as appropriate.

Students in the program are expected to participate in the Civil Engineering doctoral seminar (CE 6195) a one credit hour course that meets every semester. Three semester credit hours of the seminar are required for the degree.

Examinations

During the first semester new students will take an assessment test (set by three members of the doctoral program committee appointed by the director) to assess the student's technical background and her or his ability to integrate and apply that background to the solution of engineering problems. Based on the results of the test, the committee may recommend specific coursework for students to undertake. This coursework may or may not be applied to the degree plan depending on the area and level of the courses proposed.

Students in the Ph.D. program must be admitted to candidacy prior to the start of work on their doctoral dissertation. To be admitted to candidacy, a student will be required to take a comprehensive examination administered by his/her Doctoral Advisory Committee. The Program Director, in consultation with the student, will appoint a Preliminary Dissertation Committee of five members of the Doctoral Program Committee. The student will not be allowed to register in dissertation courses until this requirement is satisfied. The comprehensive exam will examine both the candidate's breadth of knowledge and understanding of basic principles related to the field of research and knowledge and understanding of the topic that the candidate intends to develop into a dissertation.

Doctoral Research

Students must complete 21 hours of independent research (CE 6396) under the direction of a faculty mentor. The work will involve research on topics in civil and infrastructure engineering related to the dissertation or conducted as a component of the student's overall graduate program.

Dissertation

Students must complete a dissertation in some area of infrastructure engineering systems that is an original work of scholarship of a quality that provides the basis for one or more technical publications. It should demonstrate both the ability to conduct original independent research and competence in scholarly exposition (6 semester credit hours, CE 6398 and 6399).

Final Oral Examination

Upon completion of the dissertation, as approved by the dissertation committee, the student must defend, in public, his or her dissertation research. The dissertation committee will be responsible for administering the final oral defense, which will be open to the public.

Requirements for the Master of Science in Civil Engineering Degree

For the Master of Science in Civil Engineering, thesis and non-thesis programs are available. Students enrolled in the thesis program normally take a minimum of 24 hours of course work plus six hours of CE 5398-CE 5399, Thesis. Non-thesis students follow a 33-hour program which includes credit for CE 5396-CE 5397, Graduate Design Projects.

Requirements for the Master of Science and Master of Engineering in Environmental Engineering Degrees

The Master of Science in Environmental Engineering requires 25 hours of course work, plus six hours of CE 5398-CE 5399, Thesis. The Master of Engineering in Environmental Engineering requires 31 hours of course work, plus the completion of a professional report as part of six hours of CE 5396-CE 5397, for a total of 37 credit hours.

Applicants wishing to pursue the Environmental program with a non-Civil Engineering background are welcome to apply and should request specific detailed information regarding admission policy.

Civil Engineering (CE)

For Undergraduate and Graduate Students

3325 Environmental Engineering Fundamentals

4153 Water and Waste Laboratory

4335 Structural Design I

- 4340 **Transportation Engineering**
4342 **Water and Wastewater Engineering**
4348 **Geotechnical Engineering**
4361 **Structural Design II**
4371 **Engineering Problems**
4456 **Hydraulic Engineering**

For Graduate Students Only

- 5191 **Individual Studies (0-0-1)**
5291 **Individual Studies (0-0-2)**
5391 **Individual Studies (0-0-3)**

Individual variable-credit research design or analysis on advanced phases of Civil Engineering problems conducted under the direct supervision of a faculty member. A maximum of six credit hours may be applied towards the MS degree. *Prerequisite:* Permission of Graduate Advisor.

- 5194 **Graduate Research (0-0-1)**
5294 **Graduate Research (0-0-2)**
5394 **Graduate Research (0-0-3)**
5494 **Graduate Research (0-0-4)**
5594 **Graduate Research (0-0-5)**
5694 **Graduate Research (0-0-6)**

Individual variable-credit research of contemporary topics in Civil Engineering. Cannot be used to satisfy minimum degree requirements. Grade of pass or fail. *Prerequisite:* Department approval.

5302 **Groundwater Hydrology (3-0)**

A general course in groundwater hydrology, emphasizing fundamental principles and their applications to practical problems. Topics included are hydrologic cycles, geologic environments and controls, unsaturated and saturated zones, Darcy's law, continuity and energy principles, Navier-Stokes equations, flow equations, steady and unsteady hydraulics, aquifer tests, analytical and numerical models and computer codes. *Prerequisite:* Instructor approval.

5303 **Engineering Analysis (3-0)**

Formulation and solution of initial and boundary value problems arising in structural mechanics. *Prerequisites:* MATH 2326 or MATH 3326, and instructor approval.

5304 **Advanced Reinforced Concrete (3-0)**

Review of fundamental behavior of reinforced concrete structures. Design of reinforced concrete systems in accordance with ACI code. Topics include two-way slabs, plates, shells, continuous beams, frames, prestressed concrete, and composite design. *Prerequisite:* CE 4335.

5305 **Advanced Structural Analysis (3-0)**

Theory of finite element approximation, numerical solutions of a variety of problems in structural mechanics including beam-columns, grid beams and plates on linear and nonlinear foundations, and matrix structural analysis. May be repeated for credit. *Prerequisites:* CE 3343 and department approval.

5307 **Theory of Finite Element Analysis (3-0)**

Finite elements of structural mechanics problems, virtual work principle, plane trusses and frames, axial elements, beam bending, plane stress and plane strain, axisymmetric stress analysis, three dimensional stress analysis, isoparametric finite elements, finite element computer project, and use of several finite element softwares to solve typical problems. *Prerequisites:* (1) CE 3343 or equivalent, (2) CS 1420 FORTRAN or C programming, and (3) instructor approval.

5308 **Advanced Design of Steel Structures (3-0)**

Design of structural steel systems using AISC LRFD code, welded and bolted connections of axial members, framed and seated shear connections, rigid and semi-rigid moment connections, base plate connections, beam and column splices, steel-concrete composite construction, and use of software to design typical systems. *Prerequisites:* CE 4361 and instructor approval.

5310 **Risk and Reliability Analyses of Engineering Systems (3-0)**

Quantitative risk and reliability analyses in engineering. Reliability methods applicable to design, component reliability, system reliability, parallel systems, series system, extreme value theory, fault tree and decision analysis, approximate methods for risk and reliability, and selected applications to civil engineering. *Prerequisite:* Department approval.

5311 **Structural Buckling and Stability (3-0)**

Buckling of columns, frames, arches, rings, plates, and shells, lateral and torsional buckling of beams. Numerical methods of buckling analysis, stability analysis of complex systems using specialized computer programs. *Prerequisites:* CE 3343 and department approval.

5312 **Environmental Processes (3-0)**

5312 Environmental Processes (3-0)

Critical study of fundamental theories and modeling approaches for physical, chemical, and biological processes that affect the fate of chemicals in the environment. Mass flow and diffusion, kinetics and equilibrium, solubility and precipitation, volatilization, oxidation-reduction, types of sorption, complexation, radiodecay, and biotransformation. Applications focus on waste disposal, soil and groundwater reclamation, and advanced water and wastewater treatment operations. *Prerequisite:* Instructor approval.

5318 Bridge Engineering (3-0)

General considerations for design and load capacity evaluation of highway bridges. Introduction to load and resistance factor design (LRFD) philosophy. Bridge loads. Influence lines. Grillage analysis of bridges. Reinforced and prestressed concrete bridges. Composite steel bridges. Bridge substructures. Load rating. Introduction to seismic analysis and design. *Prerequisite:* Department approval.

5319 Structural Systems (3-0)

Application of systems engineering principles to planning, design, and construction of building and bridge structures with emphasis on performance requirements and economic factors. *Prerequisite:* Department approval.

5320 Advanced Geotechnical Engineering (3-0)

Advanced treatment of topics in geotechnical engineering, including the engineering response to loading, soil properties, earth pressure, shear strength, soil compaction and fabric, soil hydraulics, and consolidation and settlement analysis. *Prerequisites:* CE 4348 or department approval.

5322 Hazardous and Special Wastes Management (3-0)

A study of waste management from cradle to grave; generation, storage, transportation, treatment, disposal, exchanges and minimization. The program emphasizes legislative and technical aspects with focus on treatment and disposal technologies. Analysis and design covers physical, chemical, thermal or biological processes with general applications in the industrial and energy producing sectors. Special wastes, such as high-technology, infectious and radio active, are addressed as case studies. *Prerequisite:* ABS degree in Engineering or Chemistry, graduate standing in engineering or chemistry, or department approval.

5323 Prestressed Concrete (3-0)

Theory, advantages, and limitations; various systems of prestressing; composite construction; continuous span theory. *Prerequisite:* Department approval.

5324 Construction Management (3-0)

Planning and management of construction or engineering organizations, including formation, organization, legal factors, marketing, financing, and human resource management. *Prerequisite:* Department approval.

5325 Design of Structures for Dynamic Loads (3-0)

Behavior of structural members under dynamic loads. Vibration theory, particular reference to structures, design of structural systems for dynamic loads, wind loads, and earthquakes. *Prerequisite:* Instructor approval.

5326 Air Pollution Control (3-0)

Effect of air pollution, classification of wastes, meteorological factors, sampling and analysis, abatement, and statistical analysis. *Prerequisite:* Instructor approval.

5327 Continuum Mechanics I (3-0)

Mathematical description of continuum mechanics principles, including; tensor analysis, generalized description of kinematics and motion, conservation laws for mass and momentum; invariance and symmetry principles. *Prerequisite:* Department approval.

5329 Air Pollution Modeling (3-0)

Atmospheric boundary layer, atmospheric turbulence, air pollution meteorology, turbulent diffusion in the atmosphere, Eulerian diffusion equations, Gaussian models, USEPA regulatory air pollution models, modeling considerations, urban air pollution, and recent developments in air pollution modeling. *Prerequisite:* Department approval.

5332 Modern Methods of Engineering Computations (3-0)

Methods of iterations, approximations, and numerical procedures used in solution of complex problems and optimizations such as occur in Engineering Design and Scientific Analysis. *Prerequisite:* Instructor approval.

5333 Plates and Shells (3-0)

The theory and design of plates and shell structures by the membrane and bending stress theories. *Prerequisite:* Instructor approval.

5335 Soil Dynamics (3-0)

Fundamentals of vibration, wave propagation in elastic homogeneous medium, shear modulus of soil, geophysical exploration, foundation vibration-half space theory, lumped parameter systems, dynamic lateral earth pressure, soil liquefaction. *Prerequisites:* CE 4448 and department approval.

5338 Slope Stability (3-0)

Properties of soils relevant to slope stability. Site investigation, instrumentation and monitoring of slopes. Methods of stability analysis for embankments, dams, natural and manmade cut slopes, rock falls, debris flow, mudslides, and submarine slopes. Stability of slopes under earthquake loading conditions. *Prerequisite:* Department approval.

5340 Computer Construction and Reclamation (3-0)

5342 Groundwater Contamination and Reclamation (3-0)

Groundwater pollution sources and typical cases in hazardous and radioactive waste management. Fundamentals of flow and transport of chemicals in porous media. Modeling phase distribution of chemicals in subsurface environments. Use of state-of-the-art computer codes (mainframe- and micro-computers). Applications to either planning, case evaluation, remedial action or clean-up technologies. *Prerequisite:* Instructor approval.

5344 Biological Unit Operations and Processes (3-0)

Design course for biological waste treatment systems. Both anaerobic and aerobic processes are covered and include attached and suspended growth processes such as activated sludge and its variants, bio-towers, RBC's, sequencing batch reactors, fluidized bed reactors and anaerobic digestion. The course will also address the biological removal and control of nitrogen and phosphorous for nutrient and ammonia toxicity control. *Prerequisite:* Instructor approval.

5345 Advanced Water Treatment Processes (3-0)

Design course focusing on the development of treatment trains for the removal of contaminants from water. Advanced design process development for filtration, adsorption, disinfection, ion exchange, membrane processes and inorganic residuals disposal. Class includes relevant field trips to advanced treatment facilities and a process design project. *Prerequisite:* Instructor approval.

5349 Design of Filtration and Membrane Processes (3-0)

Fundamentals of particulate and ion removal/rejection are reviewed and then applied to engineered systems. The design of multi-media filtration systems, ultra and nano filtration processes, reverse osmosis (RO), electro dialysis, are covered in depth. Brine concentrate disposal methods such as deep well injection, irrigation, and enhanced evaporation are examined. Products such as membranes and brine concentration systems and availability from manufacturers are reviewed. Site visits to industrial application sites, an engineering design office, and an Original Equipment Manufacturer (OEM) may be included. *Prerequisite:* Department approval.

5351 Mechanistic Pavement Design and Analysis (3-0)

Stresses and deformations in flexible and rigid pavements. Traffic loading and volume. Material characterization. Drainage design. Definition of pavement performance. Application of reliability to pavement design. Flexible and rigid pavement design. Design of overlays. *Prerequisite:* Instructor approval.

5352 Foundation Design II (3-0)

Determination of lateral earth pressure. Design of traditional retaining structures, mechanically stabilized retaining walls and cofferdams. Stability of slopes, and dewatering. *Prerequisite:* CE 4348 or department approval.

5353 Geotechnical Site Investigation (3-0)

Scope of site investigation. Subsurface data requirements. Conduct of investigation. Field mapping. Engineering Geophysics. Laboratory and field investigation. Compilation and presentation of geotechnical information. *Prerequisite:* CE 4348 and instructor approval.

5355 Advanced Civil Engineering Materials (3-0)

Advanced topics in civil engineering materials, design and characterization of asphalt cement and asphalt concrete mixtures, design and characterization of Portland cement concrete, and application of composite materials to Civil Engineering projects.

5359 Foundation Design I (3-0)

Subsurface Exploration, Spread Footings, Mat Foundations, Pile Foundations, Drilled Shaft, Mechanics of Laterally and Axially Loaded Piles. *Prerequisite:* CE 4348 with a grade of "C" or better.

5360 Highway Geometric Design (3-0)

This course will provide students with an understanding of the basic principles and techniques of highway design. This will include laying out potential routes, detailed design of the alignment, and evaluation of drainage, earthwork, and intersection requirements. The student should be able to understand and apply these principles to highway design problems. The student will use existing computer tools to generate and analyze designs. Upon completion, students should be prepared to work in the field of highway design and to study advanced topics in roadway design.

5361 Traffic Flow and Simulation Modeling (3-0)

This is a comprehensive introductory course to traffic flow and simulation modeling. Topics include: basic microscopic; meso-scope and macroscopic traffic flow theories; advanced traffic flow theories such as high-order traffic flow theories; analytical and simulation based traffic flow modeling; traffic simulation models and their applications. *Prerequisites:* Satisfactory completion of CE 4340 or equivalent and department approval.

5362 Urban Transportation Planning (3-0)

This course introduces the student to transportation planning and provides the student with an understanding of transportation planning models, including travel demand models of trip generation, trip distribution, mode choice, and traffic assignment. The course also provides instruction in econometric model estimation methods and use of behavioral models in service design, marketing and prediction. Practical problems are assigned to provide familiarity with models used and experience in data handling and estimation. *Prerequisites:* Satisfactory completion of CE 4340 or equivalent and department approval.

5363 Advanced Travel Demand Analysis (3-0)

This course addresses new developments in the econometric and behavioral aspects of demand analysis and forecasting, supply-demand interaction in transport systems, and dynamic models. Applications include passenger travel, urban activity decisions, user responses to information, intelligent transportation systems, freight transportation as well as the demand for other types of infrastructure facilities and services. *Prerequisites:* Satisfactory completion of CE 4340 or equivalent and department approval.

5364 Infrastructure Network Flow Analysis and Optimization (3-0)

The primary focus of this course is on the use of quantitative techniques of operations research to model system performance, design transportation services, and analyze transportation network problems through the design, analysis and implementation of algorithms. Topics include introductions to data structures, memory management and

complexity analysis; queuing systems; application of graph theory and network analysis to transportation problems (including shortest path, vehicle routing and other problems arising in connection with scheduled and unscheduled systems); analytical approaches to the formulation of network equilibrium assignment problems and solution algorithms; and introduction to Intelligent Transportation Systems (ITS). *Prerequisites:* Satisfactory completion of CE 4340 or equivalent and department approval.

5365 Decision Making in Infrastructure System Design and Evaluation (3-0)

This course is aimed at providing students with methodologies and applications for complex decision making in infrastructure system design and evaluation in the presence of multiple criteria/objectives, multiple actors and uncertainty. In addition to the conceptual, mathematical and algorithmic aspects of the various approaches, limitations, implementation issues and case studies are addressed. *Prerequisites:* Satisfactory completion of CE 3373 or equivalent and department approval.

5390 Special Topics in Civil Engineering (3-0)

Advanced topics of contemporary interest in civil engineering. May be repeated for credit when topic varies. *Prerequisite:* Instructor approval.

5396 Graduate Design Projects (0-0-3)

Individual research, design, or analysis on advanced phases of civil engineering problems conducted under the direct supervision of a faculty member. The course, including a written report, is required of all students in the non-thesis option. *Prerequisite:* Instructor approval.

5397 Graduate Design Projects (0-0-3)

Individual research, design, or analysis on advanced phases of civil engineering problems conducted under the direct supervision of a faculty member. The courses, including a written report, are required of all students in the non-thesis option. *Prerequisites:* CE 5396 and instructor approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.

Prerequisite: CE 5398.

5409 Environmental Engineering Chemistry (3-3)

Study and evaluation of the chemical characteristics of ground water, surface water, municipal waste waters, and industrial effluents. Acid base reactions, oxidation reduction reactions, gas solubility, adsorption, precipitation, and dissolution. Laboratory covers analysis of physical, chemical, and biological properties of water. Work with AA, GC, IC, TOC, and other instrumentation for water analysis. *Prerequisite:* Instructor approval.

6195 Civil Engineering Seminar (1-0)

Presentaton and discussion of topics in infrastructure engineering by graduate students, faculty and visitors. *Prerequisites:* Permission of the CE program director and department approval.

6301 Infrastructure Management (3-0)

The basic concepts and principles of infrastructure management. Life and performance models required for a sound management system. The concepts of modeling performance (including maintenance and repair) for facilities such as roads, buildings, bridges, water supply systems, and others). *Prerequisite:* Department approval.

6303 Engineering Analysis I (3-0)

Series solutions of differential equations, Fourier Series and Fourier Integrals, Bessel's Equations and Bessel Functions, Lagrange's equations and Lagrange's polynomials, Stern-Liouville problem and eigenfunction expansions. Formulation and solution of initial and boundary value problems arising in Civil Engineering. *Prerequisite:* Department approval.

6306 Infrastructure Engineering (3-0)

A hands-on course that provides information about the basic concepts of deterioration engineering, material science, testing and evaluation, project evaluation and planning and construction management and environmental impact. *Prerequisite:* Department approval.

6313 Water Resources Management (3-0)

Technological and institutional approaches for managing water resources; the planning process; systems analysis methods; comprehensive integration of engineering, economic, environmental, legal and political considerations in water resources development and management; issues and future directions. *Prerequisite:* Department approval.

6314 Advanced Traffic Engineering (3-0)

Human, vehicular, and traffic characteristics as they relate to driver-vehicle-roadway operational systems; traffic studies and methods of analysis and evaluation. Advanced theory and application of traffic control; signalization; and freeway operations. *Prerequisite:* Department approval.

6315 Infrastructure Planning (3-0)

Influence of infrastructure in shaping urban form; relationships between land use and transportation; trends in urban development; site development; circulation and relationships to the street system; guidelines for redevelopment of existing public infrastructure systems. *Prerequisite:* Department approval.

6316 Urban Transportation Analysis (3-0)

Characteristics of urban transportation systems, trends in urban mobility; the urban transportation modeling process, study design data collection, trip generation, trip distribution, mode choice and traffic assignment; use and interpretation of modeling results; alternatives analysis; intermodal transportation issues; intercity transportation, the transportation life cycle. *Prerequisite:* Department approval.

6332 Modern Methods of Engineering Computation (3-0)

Essential methods for computer-aided problem solving in infrastructure engineering areas. Topics may include computer operating systems concepts; the Internet and World Wide Web site design; advanced programming with C programming language; data structures; file manipulation and management; Monte Carlo simulation techniques; interfacing with spreadsheets, SQL databases, and computer-aided design packages; introduction to Geographic Information Systems. Team programming is emphasized. *Prerequisite:* Department approval.

6396 Doctoral Research (0-0-3)

Directed research on topics in civil and infrastructure engineering related to the dissertation or conducted as a component of the student's overall graduate program. *Prerequisites:* Admission to the CE program or permission of the CE Program Director and department approval.

6398 Dissertation (0-0-3)

Taken when preparation of the dissertation is begun. One enrollment permitted. *Prerequisite:* Completion of comprehensive examination.

6399 Dissertation (0-0-3)

Taken continuously during preparation of the dissertation. *Prerequisite:* CE 6398.





Computer Science

234 Computer Science Building
(915) 747-5480
Fax (915) 747-5030
<http://www.cs.utep.edu>

PROGRAM CHAIRPERSON: Ann Q. Gates

GRADUATE FACULTY: Ceberio, Cheon, Freudenthal, Fuentes, Gates, Kreinovich, Longpré, Modave, Novick, Pinheiro da Silva, Roach, Romero, Sassenfeld, Teller, Ward

Computer Science offers a Master of Science in Computer Science, a Ph.D. in Computer Science, and a Master of Information Technology in collaboration with Information and Decision Sciences. Information about the Master of Information Technology program is in a separate section of the catalog. The MS. and Ph.D. programs emphasize active student involvement in research groups. Our goal is to produce graduates who possess an education of sufficient breadth and depth to qualify them as leaders in both the industrial and academic environments of Computer Science. Computer Science faculty members have particular expertise in the following areas: Applications of Theory, High Performance Computing, Interactive Systems, and Software Engineering.

Doctor of Philosophy Degree in Computer Science

Educational Objectives

The Computer Science Ph.D. program seeks to provide students with:

- a thorough grounding in the fundamental principles and practices of computer science;
- the ability to advance the state of the art of computer science;
- the skills to become researchers and teachers who can excel in both the academic and professional spheres of computer science;
- a clear understanding of the professional, ethical, and societal implications of computer science research; and
- the ability to work across disciplinary boundaries, both within and beyond computer science.

Requirements for Admission

Applicants will apply through the Graduate School at the University of Texas at El Paso. The applicant must meet the requirements set forth by the Graduate School. The application packet must include:

- Official scores on the Graduate Record Exam
- Official scores on the Test of English as a Foreign Language (TOEFL) for international applicants whose first language is not English, or who have not completed a university degree at an English-speaking institution.
- Statement of Purpose
- Two letters of recommendation, and any other material that supports the application, for example, published papers, conference presentations, or patents.

The Graduate School will forward the application packet to the Computer Science Graduate Admissions Committee which will assess the packet and make admission recommendations to the Graduate School. Applicants must have completed a bachelor's or master's degree in Computer Science or a closely related discipline. Exceptional students with non-computer science backgrounds may be conditionally admitted to the program.

Requirements for Degree

The Ph.D. program requires a minimum of 48 semester-credit hours of coursework beyond a Bachelor's degree and 24 semester-credit hours of research and dissertation. Coursework includes a set of core courses and general, technical, and interdisciplinary electives. If the student enters the program with a Master's degree in Computer Science, he or she will be required to take a minimum of 27 semester-credit hours of coursework. In order to ensure that the student is able to apply principles and techniques of computer science to software development, clearly communicate technical ideas in writing, and synthesize, organize and communicate technical material to an audience, the student must meet programming, written communication, seminar, and teaching requirements. The student also must pass a Qualifying Examination, a Comprehensive Examination, and defend his or her dissertation. Consult the Computer Science Graduate Program Handbook or program website for more detailed information about the program requirements.

Table 1 summarizes the degree requirements. The descriptions follow.

Table 1: Degree Requirements Summary

| Description | credit hours |
|-----------------------------|--------------|
| Core Courses | 15 |
| General Electives | 12 |
| Technical Electives | 15 |
| Interdisciplinary Electives | 6 |
| Doctoral Research | 18 |
| Dissertation | 6 |
| Competency Requirements | 0 |
| Total | 72 |

Core Courses (15 credit hours): The following five core courses are required:

| | | |
|----|------|---|
| CS | 5392 | Graduate Research Methods |
| CS | 5303 | Logical Foundations of Computer Science |
| CS | 5315 | Theory of Computation |
| CS | 5341 | Advanced Computer Architecture |
| CS | 5350 | Advanced Algorithms |

General Electives (12 credit hours): The purpose of the general elective requirement is to provide the student with a broad foundation of computer science. Courses are categorized according to major areas and students are required to take four courses that are outside their major area of study.

Technical Electives (15 hours): The technical electives are used to provide the student with depth in an area. The student must take courses in his or her specific area of study as approved by the Graduate Advisor.

Interdisciplinary Electives (6 hours): The interdisciplinary requirement enables the student to acquire a more detailed understanding of a field related to his or her research. The student is required to take senior-level or graduate-level courses outside of Computer Science.

Doctoral Research (18 hours): The student must take 18 hours of doctoral research, after passing the Qualifying Examination.

Dissertation (6 hours): The student will be able to register for dissertation hours only after passing the Comprehensive Examination. The dissertation must demonstrate

Dissertation (6 hours): The student will be able to register for dissertation hours only after passing the Comprehensive Examination. The dissertation must demonstrate competence in scholarly exposition and the ability to do independent research. It should present original investigations at an advanced level on a significant problem in computer science and should provide the basis for a publishable contribution to the research literature in the field. The rules for the dissertation and dissertation defense will follow the guidelines set forth by the Graduate School at UTEP.

Examinations

The Qualifying Examination is designed to ensure that students have graduate-level mastery of the basic Computer Science undergraduate material. Although the only knowledge required is that learned in undergraduate courses, the examination tests the ability to synthesize, integrate, and apply that knowledge at an advanced level.

The Comprehensive Examination is given to ensure that the student has identified a research topic and has acquired a sufficient depth of knowledge in the topic area to perform new and significant research and that the proposed research is feasible. The Comprehensive Examination will be taken after completion of the Qualifying Examination, typically within two years from that time. The student will prepare a written research proposal. The Comprehensive Examination will be an oral examination before the student's Doctoral Advisory Committee, covering the student's research proposal and other topics in his or her general area of study. Upon successful completion of the examination, the chair of the student's Doctoral Advisory Committee will inform the Graduate School that the student is ready to begin work on his or her final dissertation, and the student will be admitted to candidacy.

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

Master of Science in Computer Science

Requirements for Admission to the M.S. Program

See the introduction to the College of Engineering for information about general requirements. Additionally, to be admitted, applicants must submit evidence of successful completion of the following undergraduate courses or their equivalent:

- MATH 1411 Calculus I
- MATH 2300 Discrete Mathematics
- CS 2402 Data Structures
- CS 3350 Automata, Computability and Formal Languages
- CS 3320 Computer Architecture II: Advanced Computer Design and Implementation
- CS 3360 Design and Implementation of Programming Languages

Exceptional students who have taken Math 2300 and CS 2402, or equivalent courses, may be conditionally admitted to the program. In such cases, students will be required to complete the undergraduate leveling courses specified by the department with a grade of "B" or better in each course. After one year, students who fail to meet this requirement will not be allowed to register for graduate courses.

Requirements for M.S. Degree

Thesis and non-thesis programs are available under this degree. Students enrolled in a thesis program must take 27 semester hours of course work plus 6 semester hours of CS 5398-CS 5399 Thesis. Non-thesis students follow a 30 semester-hour program plus six semester hours of CS 5396-CS 5397 Graduate Projects.

All students are required to complete the following four core courses with a "B" average or better and with no more than one "C".

- CS 5303 Logical Foundations of Computer Science
- CS 5315 Theory of Computation
- CS 5341 Advanced Computer Architecture
- CS 5350 Advanced Algorithms

Students who have not taken CS 4375 Theory of Operating Systems (or its equivalent) are required to include this course or CS 5340 Advanced Operating Systems in their program of study. In addition, those who have not taken CS 4342 Database Management (or its equivalent) are required to include this course or CS 5322 Topics in Advanced Database Systems in their program of study.

Computer Science (CS)

A maximum of six hours from the following list of undergraduate courses may be applied toward the Master of Science degree in Computer Science:

- 4310 **Software Engineering: Requirements Engineering (3-0)**
- 4311 **Software Engineering: Design and Implementation (3-0)**
- 4316 **Computer Networks (3-0)**
- 4320 **Artificial Intelligence (3-0)**
- 4342 **Database Management (3-0)**
- 4352 **Compilers and Interpreters (3-0)**
- 4365 **Topics in Soft Computing (3-0)**
- 4375 **Theory of Operating Systems (3-0)**
- 4390 **Special Topics in Computer Science (3-0)**
- 4392 **Research Methods in Computer Science (3-0)**

For Graduate Students Only

- 5303 **Logical Foundations of Computer Science (3-0)**

A presentation of fundamental tools required in advanced computer science, including topics such as propositional and first order logic, topological properties of networks, managing tasks in parallel systems using graphs as well as modeling, simulations and queuing processes.

5310 Computer Graphics (3-0)

Computer representation and display of graphical information including line, character, and curve generation, two-dimensional and three-dimensional graphical techniques, interactive methods, and advanced topics.

5314 Artificial Intelligence I (3-0)

A study of first-order logic, including an introduction to Prolog, knowledge representation including semantic networks and logical representations, query answering, and reasoning methods.

5315 Theory of Computation (3-0)

A review of formal languages and models of computation such as Turing machines, followed by an in-depth study of undecidability, computational complexity theory, and intractability.

5317 Human-Computer Interaction (3-0)

Models of user behavior and human information processing, models of interaction, interaction styles including direct manipulation, interface design and development methods, implementation issues, interface programming, evaluation methods, and human-computer interaction research methods.

5318 Topics in Interactive Systems (3-0)

Advanced study of human-computer interaction. In-depth treatment of topics such as theoretical models of interaction, evaluation of interfaces, dialogue modeling, next-generation interfaces, user interface management systems, participatory design, groupware, and design of procedures and documentation. May be repeated for credit when topic varies.

5319 Topics in Language Processing (3-0)

Concepts and techniques of computational processing of human language. Topics may include natural language processing, spoken language understanding, natural language generation, machine translation, dialogue systems, information extraction, and information retrieval. May be repeated for credit when topic varies.

5322 Topics in Advanced Database Systems (3-0)

A review of relational algebra followed by study of datalog and its extensions (negation as failure, aggregates), query optimization, dependencies, and object-oriented databases. *Prerequisite:* CS 5303 with a grade of "B" or better.

5333 Logic Programming (3-0)

This course will include advanced logic programming technique as well as an in-depth study of the semantics of Prolog, more advanced logic programming systems, and deductive databases.

5334 Parallel and Concurrent Programming (3-0)

The study of software and hardware architectures for parallel and distributed systems, including techniques for task partitioning and allocation, interprocess communication and synchronization, load balancing, and performance issues, in particular, task granularity, locality, and scalability.

5340 Advanced Operating Systems (3-0)

Examination of current research topics in operating systems such as kernel architectures and support for asynchronous I/O, multiple CPUs, memory management, filesystems, real-time processing, network protocols, and virtualization. Typical student projects include modifications or extensions to services provided by an existing operating system. Students are assumed to already understand classical operating systems theory at a level similar to that taught in CS 4375 including process scheduling, memory management, synchronization, and deadlock avoidance.

5341 Advanced Computer Architecture (3-0)

A review of the fundamentals of computer design and instruction set principles, followed by the study of the techniques used in modern high-performance computing systems, such as instruction-level parallelism, multiprocessors and thread-level parallelism, memory hierarchy design, and storage systems. Knowledge of undergraduate level Computer Architecture is assumed.

5350 Advanced Algorithms (3-0)

Review of mathematical techniques for analysis of computer algorithms, and techniques for design of efficient algorithms, description and analysis of both well-established and recently developed algorithms.

5351 Interval Computations (3-0)

An overview of interval computations that take into account how input uncertainties influence the computation result. A review of the main ideas behind interval computations, main interval techniques, and applications to practical problems such as robotics, computer graphics, control, and bioinformatics.

5352 Computer Security (3-0)

General concepts and applied methods of computer security, especially as they relate to confidentiality, integrity, and availability of information assets. Topics include system security analysis, access control and various security models, identification and authentication, protection against external and internal threats, communication protocols and internet security.

and internet security.

5353 Topics in Emerging Computing Paradigms (3-0)

Introduction to emerging, revolutionary computing paradigms, such as quantum computing, and to the design and development of highly efficient algorithms in these paradigms. Topics may include quantum, chemical, and biological computing. May be repeated for credit when topic varies.

5354 Topics in Intelligent Computing (3-0)

Introduction to advanced concepts and techniques of intelligent and soft computing and their applications. Topics may include neural computations, fuzzy computations, evolutionary computations, intelligent control and intelligent web design, machine learning, computer vision. May be repeated for credit when topic varies.

5356 Validation Analysis and Interval Computations for Bioinformatics (3-0)

Introduction to numerical algorithms with automatic results verification and to interval computations – methodology that provides guaranteed error estimates for the results of indirect measurement and data processing. Topics include reliable methods for equation solving, global optimization, etc. All topics are illustrated by bioinformatics examples (such as protein folding). Computer usage fee required.

5381 Topics in Software Design (3-0)

The study of methods and approaches to software design. Topics may include advanced object-oriented design, meta-object protocols, software architectures, and design patterns. May be repeated for credit when topic varies.

5382 Topics in Software Development (3-0)

The study of the production of high-quality software systems. Topics may include process improvement models, deductive and inductive program synthesis, clean-room programming, and software project management. May be repeated for credit when topic varies.

5383 Topics in Software Assurance (3-0)

The study of methods and approaches to software quality assurance particularly as it applies to high-assurance, high-consequence, and safety critical systems. Topics may include software specification methods, formal methods of software development, formal methods in software verification, and high-assurance software engineering and system safety. May be repeated for credit when topic varies. *Prerequisites:* CS 5303 with a grade of "B" or better.

5390 Special Topics (3-0)

Advanced topics of contemporary interest in Computer Science. May be repeated for credit when topic varies. *Prerequisite:* Instructor approval.

5391 Individual Studies (0-0-3)

Individual variable-credit research, design, or analysis on advanced phases of Computer Science problems conducted under the direct supervision of a faculty member. A maximum of three credit hours of CS 5391 or CS 4371 may be applied towards the MS degree. *Prerequisite:* Permission of Graduate Advisor.

5392 Graduate Research Methods (3-0)

Introduction to research methods, including research paradigms and methodologies across computer science, research question formulation, design of research approach, literature search and presentation of related work, analysis of results, verbal and written presentation skills, and research ethics. Students prepare and defend a thesis proposal or project in an area of their choice.

5394 Graduate Research (0-0-3)

5694 Graduate Research (0-0-6)

Individual variable-credit research of contemporary topics in computer science. *Prerequisite:* Permission of Graduate Advisor.

5396 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of computer science conducted under the direct supervision of a faculty member. The courses, including a written report, are required of all students in the non-thesis option. *Prerequisite:* Instructor approval.

5397 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of computer science conducted under the direct supervision of a faculty member. The courses, including a written report, are required of all students in the non-thesis option. *Prerequisites:* CS 5396 and instructor approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues.

Prerequisite: CS 5398.

For Doctoral Students Only

6194 Doctoral Research (0-0-1)

6294 Doctoral Research (0-0-2)

6394 Doctoral Research (0-0-3)

6694 Doctoral Research (0-0-6)

Individual research in Computer Science. *Prerequisite:* Department approval.

6390 Special Topics (3-0)

Advanced topics of contemporary interest in Computer Science. May be repeated for credit when topic varies. *Prerequisite:* Department approval.

6391 Individual Studies (0-0-3)

Individual study of a specific topic advanced in computer science under the direct supervision of a faculty member. A maximum of three credit hours may be applied toward the Ph.D. degree. *Prerequisite:* Department approval.

6398 Dissertation (0-0-3)

Initial work on the dissertation. *Prerequisite:* Department approval.

6399 Dissertation (0-0-3)

Taken continuously during preparation of the dissertation. *Prerequisite:* CS 6398.





Electrical and Computer Engineering

A-325 Engineering Annex
(915) 747-5470
ece@ece.utep.edu

PROGRAM CHAIRPERSON: Patricia A. Nava

GRADUATE FACULTY: Cabrera, Flores, Gonzalez, Liu, Lush, MacDonald, Moya, Nava, Nazeran, Pineda, Pierluissi, Quiñones, Riter, Rosiles, Sarkodie-Gyan, Schroder, Starks, Usevitch, von Borries, Williams, Yao, Zubia

Electrical and Computer Engineering offers a Master of Science Degree with a major in Electrical Engineering or Computer Engineering, an undesignated Master of Science with a major in Engineering, and a Ph.D. degree in Computer Engineering.

Doctor of Philosophy Degree in Electrical and Computer Engineering

Requirements for Admission

1. Bachelor's or Master's degree from an accredited institution in the United States or proof of equivalent education in an international institution
2. Undergraduate or graduate degree in Electrical and/or Computer Engineering, or a related field
3. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework (normally 3.5/4.0 GPA) from all Master's work or, if applying without a completed MS, a 3.6 GPA from an ABET accredited program)
4. A TOEFL score of 213/550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S.
5. Other evidence of background, knowledge, research or work experience in Electrical and Computer Engineering that may be available.

While some exceptional students may enter the Ph.D. program immediately upon completion of the bachelor's degree, more typically students enter the program after the conclusion of the MS degree.

Requirements for Degree

The specific course work required of each student will be determined by his/her Advisory Committee. However, each student must complete at least 84 semester credit hours beyond the bachelor's degree or at least 54 hours beyond the master's degree. The latter includes 24 hours of graduate course work and 30 credit hours of dissertation and research, the primary requirement of the degree.

Foreign Language Requirement

Under exceptional circumstances, the candidate may be required to demonstrate reading proficiency in a foreign language if the Doctoral Advisory Committee considers it necessary for his/her dissertation research.

Committees

For each degree candidate, a Doctoral Advisory Committee will be formed consisting of a dissertation advisor and at least three additional faculty with expertise in areas related to his/her program of study and research. At least one committee member must be from a department other than Electrical and Computer Engineering. The Doctoral Advisory Committee will be appointed in consultation with the candidate after completion of 9-12 hours of course work applicable to the doctoral degree. The appointment must be approved by the Graduate School and the Graduate Advisor of the Department of Electrical and Computer. The Doctoral Advisory Committee will administer the candidate's Comprehensive Examination and, together with an additional faculty member from outside the College of Engineering, approved by and representing the Dean of the Graduate School, will conduct the Final Dissertation Examination.

Examinations

Upon entering the program, each student will be required to complete a Qualifying Examination. To pass this examination, a student must demonstrate competency in the fundamentals of computer engineering. Upon completion of all course work, each student will take a Comprehensive Examination administered by his/her Doctoral Advisory Committee. Upon completion of the dissertation research, each student will be examined with regard to the outcome of the research project.

Dissertation

The dissertation must demonstrate both the ability to do independent research and competence in scholarly exposition. It should present original investigations at an advanced level of a significant problem in electrical and computer engineering and should provide the basis for a publishable contribution to the research literature in the field.

Draft copies of the dissertation must be submitted to the Doctoral Committee at least six days before the defense and any suggested corrections must be made. Two copies of the final bound dissertation, and the unbound original, must be submitted to the Graduate School by the posted deadlines. Two bound copies must also be submitted to the Graduate Advisor.

Microfilming of the Dissertation

The doctoral candidate who has successfully completed all requirements for the degree is required to pay the cost of microfilm reproduction of the complete dissertation. The signed original copy (unbound) of the doctoral dissertation is sent from the Graduate School to University Microfilms, Ann Arbor, Michigan, for reproduction.

Along with the dissertation, the student must also submit to the Graduate School two copies of an abstract, not to exceed 350 words in length (double-spaced) which has been approved in final form by the supervising committee. This will be published in "Dissertation Abstracts International."

Publication by microfilm does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged, if desired, by completing a special form to be secured in the Graduate School. In order to protect patent or any other rights, the Graduate School may be requested to delay publication by microfilm for a period of one year. This request must be supported by a written recommendation of the supervising professor.

Time Limits and Catalog Changes

All requirements for the degree must be completed within one eight-year period preceding the awarding of the doctoral degree. Work more than eight years old is lost and can be reinstated only by special permission of the Graduate School upon recommendation of the Departmental Committee on Graduate Studies. Further, all requirements for the doctorate must be completed within five years after passing the Comprehensive Examination.

General and specific requirements for degrees in the Graduate School may be altered in successive catalogs. Provided the requisite course continues to be offered, the student is bound only by the course requirements of the catalog in force at the time of admission or readmission within an eight-year limit, unless, with the approval of the Dean of the Graduate School, the student elects to be bound by the course requirements of a subsequent catalog. This regulation applies to course requirements only.

Master of Science Degree in Computer Engineering or Electrical Engineering

Requirements for Master of Science Admission

Students should consult the Introduction to the College of Engineering and Graduate School sections for information on general admission requirements.

Requirements for Master of Science Degrees

Three options are available for students: thesis, project, or "coursework-only." Master's students are normally admitted into the coursework-only option, but may transfer (or may be required to transfer depending upon source of support) to the thesis or project option. Such transfer must be approved by the student's advisor, and the graduate advisor. All students must take at least 18 hours of graduate course work in Electrical or Computer Engineering, including EE 5300, EE 5301, or EE 5302, and the Graduate Seminar (EE 5195) once. No more than six hours of approved senior-level undergraduate course work, and at most three hours of Individual Studies (EE 5391 or EE 5191) may be used to satisfy degree requirements.

Specific Requirements for the Master of Science with a Major in Electrical Engineering Degree

Students enrolled in the thesis option are required to take at least twenty-four (24) hours of course work plus thesis (EE 5398 and EE 5399) and the Research Methods I and II sequence (EE 5205 and EE 5106). Students in the project option are required to take 36 hours of course work including Project I (EE5396) and, if desired, Project II (EE5397). Thesis and project students must defend their thesis or project orally. Students in the coursework-only option must take 36 hours of course work.

Specific Requirements for the Master of Science with a Major in Computer Engineering Degree

A Master's in Computer Engineering with thesis option requires the completion of twenty-four (24) hours of course work, the Research Methods I and II sequence, plus six (6) hours of thesis (EE 5398 and EE 5399). At least fifteen (15) hours of the required coursework must be in topics related to Computer Engineering and must include EE 5370 (Operating Systems) and EE 5376 (Computer Architecture I). Lists of courses suitable for specialization within Computer Engineering are available. If a non-thesis option degree is sought, the above thesis hours are replaced with twelve (12) hours of courses and it is required that at least twenty-four (24) hours be in Computer Engineering.

Electrical and Computer Engineering (EE)

For Doctoral Students Only

6194 Graduate Research (0-0-1)

6294 Graduate Research (0-0-2)

6394 Graduate Research (0-0-3)

6494 Graduate Research (0-0-4)

6594 Graduate Research (0-0-5)

6694 Graduate Research (0-0-6)

Individual variable credit research in computer systems engineering. Cannot be used to satisfy minimum degree requirements. Grade of pass or fail. *Prerequisites:* Doctoral standing and instructor approval.

6195 Doctoral Seminar (1-0)

Conferences and discussions of various topics in electrical and computer engineering by faculty, graduate students, and speakers from industry and other institutions.

6390 Special Topics (3-0)

Advanced topics of contemporary interest in computer systems engineering. May be repeated twice for credit when topic varies. *Prerequisites:* Doctoral candidacy and department approval.

6391 Individual Studies (0-0-3)

Individual research in advanced phases of electrical engineering conducted under the direct supervision of a faculty member. A maximum of three credit hours may be applied toward the Ph.D. degree.

6398 Dissertation (0-0-3)

Dissertation course for doctoral students. Initial work on the dissertation.

6399 Dissertation (0-0-3)

Dissertation course for doctoral students. Continuous enrollment required while work on dissertation continues. *Prerequisite:* COMP 6398

Electrical and Computer Engineering (EE)

For Undergraduate and Graduate Students

- 4142 Laboratory for Electrical Engineering 4342
- 4178 Laboratory for Electrical Engineering 4378
- 4341 Communication Systems
- 4342 Digital Systems Design II
- 4347 Electromagnetic Energy Transmission and Radiation
- 4350 Integrated Circuits and Semiconductor Devices
- 4352 Power Electronics
- 4356 Real Time Signal Processing and Communication
- 4361 Fiber Optic Communications
- 4364 Systems and Controls
- 4365 Topics in Soft Computing
- 4372 Microcontroller Applications
- 4374 Operating System Design
- 4375 VLSI Design I
- 4378 Microprocessors Systems II
- 4379 Computer Architecture
- 4380 Microwave Communications
- 4381 Electro-Optical Engineering
- 4382 Antenna Engineering
- 4383 Digital Signal Processing
- 4385 Biomedical Instrumentation
- 4386 Computational Methods in Electrical Engineering
- 4388 Digital Communications
- 4389 High Resolution Radar
- 4395 Special Topics in Electrical Engineering

Required undergraduate electrical engineering courses may not be applied toward the MS in Electrical Engineering or Computer Engineering.

For Graduate Students Only

5095 Graduate Seminar (1-0)

Conferences and discussions of various topics in electrical and computer engineering by faculty, students, and speakers from industry and other institutions.

5106 Research Methods II (1-0)

Study and development of research questions. Students will produce and defend written research proposal in field of interest in engineering. Prerequisite: EE 5205 with a grade of "B" or better.

5118 Laboratory for EE 5318 (3-0)

Simulation, fabrication and testing of MOS technology. Includes silicon oxidation, lithography, etching, thin film deposition, diffusion and process integration. *Corequisite:* EE 5318. *Prerequisite:* EE 3329, with a "C" or better.

5191 Individual Studies (0-0-1)

Individual variable-credit research, design or analysis on advanced phases of electrical engineering problems conducted under the direct supervision of a faculty member. A maximum of 3 credit hours may be applied towards the M.S. Degree. *Prerequisite:* Department approval.

5194 Graduate Research (0-0-1)

5294 Graduate Research (0-0-2)

5394 Graduate Research (0-0-3)

5494 Graduate Research (0-0-4)

5594 Graduate Research (0-0-5)

Individual variable-credit research in electrical or computer engineering. Cannot be used to satisfy minimum degree requirements. Grade of S or U. *Prerequisites:* Graduate standing and instructor approval.

5195 Graduate Seminar (1-0)

Conferences and discussions of various topics in electrical and computer engineering by faculty, graduate students, and speakers from industry and other institutions.

5205 Research Methods I (2-0)

Introduction to the techniques, tools, and skills needed to conduct, evaluate, document, and disseminate research in engineering.

5300 Probability and Random Processes (3-0)

Random process fundamentals including spectral analysis; special classes of random processes; linear systems response to random processes; applications. *Prerequisite:* EE 3384 or STAT 3330 or equivalent.

5301 Computational Methods for Electrical Engineers (3-0)

A broad coverage of the field of numerical methods emphasizing computer techniques as they apply to Electrical Engineering. Topics generally include numerical integration and differentiation, boundary-value and eigenvalue-value problems, finite-difference and finite-elements methods, and solutions to partial, parabolic, and hyperbolic differential equations. *Prerequisite:* MATH 2326 or MATH 3326m and familiarity with MATLAB.

5302 Linear Systems Analysis (3-0)

Analysis of generalized linear systems through a state space approach. Relationships with frequency domain design. Modeling of physical systems. Controllability, observability, pole placement, and design of controllers and observers. Eigenstructures.

5306 Antenna Theory (3-0)

Fundamental theory of point sources; the antenna as an aperture; methods of analyzing and calculating characteristics of various types of antennas; self and mutual impedances of antennas; array of linear antennas; antenna measurement techniques. *Prerequisite:* EE 3321.

5310 Computer Graphics (3-0)

Advanced topics in two and three dimensional graphical techniques. Topics may vary, but course may not be repeated for credit.

5311 Semiconductor Devices (3-0)

Theory and application of advanced semiconductor devices including heterostructures, integrated circuits, semiconductor memories, charge transfer devices, thyristors, and microwave devices. *Prerequisite:* EE 4350 or equivalent.

5312 Advanced Optoelectronic Devices (3-0)

Theory and application of advanced photonic devices including injection lasers, photodiodes, infrared detectors, solar cells, and electroluminescent displays.

Prerequisite: EE 5311 or equivalent.

5318 Electronic Materials Processing (3-0)

The science and technology of integrated device/circuit fabrication including the effect of defects. Includes silicon oxidation, lithography, etching, thin film deposition, diffusion and ion implantation. *Corequisite:* EE 5118. *Prerequisite:* EE 3329, with a "C" or better.

5323 Communication Theory (3-0)

Source coding, generation, transmission, and detection of digital baseband and bandpass signals, optimum receivers, block and convolutional channel coding, adaptive equalization, encryption and decryption, and introduction to spread spectrum. *Prerequisite:* EE 3384.

5324 Statistical Detection and Estimation Theory (3-0)

Application of statistical decision theory and estimation theory to problems of communication systems and of radar and sonar. Narrowband signals, gaussian derived processes, hypothesis testing, detection of signals, and estimation of signal parameters. *Prerequisite:* EE 5300.

5330 Data Communications (3-0)

Study of modern telecommunication and data networks; packet and circuit switched networks; ATM; congestion control; mathematical modeling of networks; economics.

5332 Coding and Error Correction (3-0)

Topics to be discussed: Galois Fields, channel capacity and coding, linear channel codes and convolutional codes. Performance analysis of some well-known codes. A few decoding techniques and modulation and coding trade-offs. Instructor approval required.

5336 Fiber Optic Communication Systems (3-0)

In depth study of dispersion and attenuation in optical fibers, non-linear propagation effects, optical amplifiers, sources and detectors, wavelength division multiplexing, coherent systems, performance evaluation of fiber optic systems, and system design considerations.

5341 Systems Engineering Fundamentals & Architectures (3-0)

Introduction to the key concepts, processes and process activities carried out by Systems Engineers. Fundamentals of architecting and engineering large and complex development projects. Software tools are covered with emphasis on architectural analysis and design, functional design alternatives, and key architectural attributes. *Prerequisite: Instructor approval.*

5342 Project & Systems Engineering Management (3-0)

Techniques and tools for Systems Engineering management. Topics include technical management, organizational environments and technical team structures, time and cost estimates and cost control, resource allocation and Resource Management. Students propose project studies, with the approval of the professor, to be developed in phases as the course progresses. *Prerequisite: Instructor approval.*

5343 Requirements Engineering (3-0)

Methodologies, approaches, and techniques associated with requirements analysis and definition; process for defining requirements including feasibility study, requirements elicitation, formal specification, modeling, validation, verification, and documentation. *Prerequisite: Instructor approval.*

5344 Integration, Verification & Validation (3-0)

Integration, Verification and Validation (IV&V) process and the recommended activities at each of the different program phases. Includes verification planning, verification methods and validation methods during development, during launching and operations of the product/system; test bed requirements and unitary test, subsystem tests and integration test data collection analysis and systems requirement validation. Test reporting and modification or Change request processes that need to be initiated. *Prerequisite: Instructor approval.*

5345 Special Project Practicum in Systems Engineering (3-0)

Methodologies & processes applied to develop a project from Conceptual phase to Prototype definition under the supervision of at least two (2) faculty members from participating departments. Students are encouraged to work on real customer projects. *Prerequisite: Instructor approval.*

5351 Physiological Systems and Measurements (3-0)

A unified and systems-approach of the functions of the human body. Origin and processing of biomedical signals to extract clinical information. *Prerequisite: EE 4385, with a "C" or better, or instructor approval.*

5352 Medical Diagnostic & Therapeutic Instrumentation (3-0)

Principles, applications and design of medical, diagnostic, therapeutic, clinical laboratory instrumentation and imaging systems used in modern hospitals and clinics. Integration of concepts and techniques from human physiology, electronics, digital signal processing, and systems engineering to analyze and design biomedical instruments. Electrical safety aspects in medical instrumentation and medical environment. *Prerequisite: EE 4385, with a "C" or better, or instructor approval.*

5353 Biomedical Signal and Image Processing (3-0)

Principles, methods and algorithms for processing biomedical signals. Application of advanced DSP techniques to a number of problems in biomedical research and clinical medicine. Topics include biomedical data acquisition, filtering, feature extraction, modeling, and imaging, with examples from cardiology, neuro-physiology, muscular-physiology, and medical imaging. *Prerequisite: EE 4383, with a "C" or better, or instructor approval.*

5354 Tomographic Imaging (3-0)

Study of physical and mathematical principles used in tomography. Topics include mathematical model for tomography with non-diffracting as well as diffracting sources, Radon transform, Fourier transform, Hilbert transform. Algorithms for image reconstruction from projections, filtered back-projection algorithm, algebraic reconstruction algorithms. Problems associated with data acquisition in computed tomography such as finite beam width, aliasing artifacts and noise. *Prerequisite: EE4383, with a "C" or better, or instructor approval.*

5355 Contemporary Topics in Bioelectromagnetism (3-0)

The laws and principles of electromagnetism as they relate to biology, followed by an in depth introduction to a specific applied area of biomedical research. Such as areas may vary with the semester of offering and may include topics such as electrocardiography, magnetocardiography, encephalography, and tomography. *Prerequisite: Instructor approval.*

5360 Computer Vision (3-0)

Fundamental concepts associated with the construction of meaningful descriptions of physical objects from images; including image segmentation, two-dimensional and three-dimensional representations, knowledge representation, matching, and inference. *Prerequisite: Instructor approval.*

5366 Fuzzy Logic and Engineering (3-0)

Underlying philosophy of the theory of fuzzy sets and its applications in engineering. Fuzzy logic, fuzzy reasoning and rules, and fuzzy systems. Decision-making in the realm of vague, qualitative and imprecise data. Current models, simulation tools, hardware implementations and their applications will also be covered. *Prerequisite: Instructor approval.*

5369 CMOS Digital Circuit Design (3-0)

Analysis and design of digital integrated circuits in CMOS technology. Discussion of different models for MOS transistors and how to use them to analyze circuit performance. Analysis of logic families and styles including complementary static logic, dynamic, and pass-transistor. Topics include sizing for minimum delay, noise and noise margin, power dissipation and cost. Memory design (SRAM, DRAM) as a final project. *Prerequisite: Instructor approval.*

5370 Operating Systems (3-0)

Fundamental concepts as they apply to multiprogrammed, multiuser operating systems within distributed computer systems. Topics include an overview of the kernel, file systems, process control and scheduling, interprocess communication, memory management, and I/O. The internal algorithms of a contemporary operating system are examined. *Prerequisite:* CS 4375 or EE 4374.

5371 Digital Signal Processing (3-0)

A course emphasizing the theory behind the following: the Discrete Fourier Transform (DFT) and its role in the representation, analysis, and processing of periodic and finite-duration signals; Fast Fourier Transform (FFT) algorithms for efficient computation of the DFT; sample rate change and other basic multirate signal processing systems; FIR and IIR digital filter design procedures. *Prerequisite:* EE 4383 or instructor approval.

5372 Image Processing (3-0)

A course covering the following topics: point, algebraic and geometric operations on digital images; two-dimensional digital filtering and Fourier transforms; image enhancement, segmentation, restoration and compression techniques. *Prerequisite:* EE 5371 or instructor approval.

5374 Advanced Digital System Design I (3-0)

Modern logic design methodologies of large digital systems with standard SSI, MSI and LSI, including PLD's and microprocessors. Emphasis is placed on the use of multilevel digital simulation and hardware language description. *Prerequisite:* EE 4342 or equivalent.

5375 Advanced Digital System Design II (3-0)

Emphasis on the principles and techniques of testability design and testing of digital logic circuits, including test pattern generation and fault simulation. *Prerequisite:* EE 5374.

5376 Computer Architecture I (3-0)

Processing design, microprogramming, memory architecture, including memory hierarchy, cache and virtual memory, and pipelines. An introduction to multiprocessor configurations. *Prerequisites:* (1) EE 4342 and EE 3376 or (2) equivalent.

5377 Computer Architecture II (2-3)

Advanced topics in computer architecture, including parallel and distributed processing. *Prerequisite:* EE 5376.

5378 Advanced VLSI Design (3-0)

Important issues related to design of CAD tools for VLSI chip layout, testing, and simulation. Topics include area-time optimization, floor-plan and functional block placement, routing and functional testing for large systems. *Prerequisite:* EE 4375.

5379 Network Protocols (3-0)

The theory and application of protocols such as TCP, IP, Sockets, and RPCs that are employed in computer network communications. Concentrates on network protocols that are employed from the network, transport, and process layers of the simplified 4-layer model for computer communications.

Prerequisite: EE 5370 or instructor approval.

5389 Radar Signal Processing (3-0)

Modern signal processing techniques for high range-resolution radar systems. One- and two-dimensional signals, high resolution radar, synthetic aperture radar, inverse synthetic aperture radar, radar tomography, ultrawideband radar. *Prerequisite:* EE 4389.

5390 Special Topics (3-0)

Advanced topics of contemporary interest in electrical or computer engineering. May be repeated for credit when topic varies. *Prerequisite:* Instructor approval.

5391 Individual Studies (0-0-3)

Individual variable-credit research, design, or analysis on advanced phases of electrical or computer engineering problems conducted under the direct supervision of a faculty member. A maximum of three credit hours may be applied toward the MS degree. *Prerequisite:* Permission of Graduate Advisor.

5396 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of electrical or computer engineering problems conducted under the direct supervision of a faculty member. *Prerequisite:* Instructor approval.

5397 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of electrical or computer engineering problems conducted under the direct supervision of a faculty member. *Prerequisites:* EE 5396 and instructor approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues.

Prerequisite: EE 5398.



Industrial Engineering

101 Engineering Science Complex
(915) 747-5450
ie@utep.edu

PROGRAM CHAIRPERSON: Rafael S. Gutierrez
GRADUATE FACULTY: Contreras, Espiritu, Gutierrez, Pennathur, Taboada, Tseng, Zhang

The Industrial Engineering Department offers a Master of Science with majors in Industrial Engineering and Manufacturing Engineering, and an undesignated Master of Science with a major in Engineering. Courses of study in the Industrial Engineering major include quality engineering, computer simulation, industrial ergonomics, safety engineering, production and inventory control, and operations research. Areas of study in the Manufacturing Engineering major include design of manufacturing processes, analysis of discrete production systems, precision engineering, and automation.

The Industrial Engineering Department also offers a graduate certificate in International Manufacturing. Please contact the department for information on the program.

Requirements for Admission

Students should consult the Introduction to the College of Engineering section for information on general admission requirements.

General Requirements for Degree

Both thesis and non-thesis options are available under these degree programs. Students enrolled in a thesis option follow a 31-hour program that is composed of 24 hours of course work plus 6 hours of thesis (IE or MFG 5398 and IE or MFG 5399) and 1 hour of graduate seminar. Industrial and Manufacturing Engineering students pursuing the thesis option must have approval from the corresponding program's Graduate Advisor.

Non-thesis students follow a 36-hour program. All students enrolled in the Industrial Engineering program must take at least 15 semester hours of course work within their major if they are following the thesis option or 18 if they are following the non-thesis option. Students enrolled in the Manufacturing Engineering program must take at least 15 semester hours of course work offered within the Mechanical and Industrial Engineering programs if they are following the thesis option or 18 for the non-thesis option.

No more than 6 semester hours of approved upper-level undergraduate course work may be used to satisfy the degree requirements in the Industrial and Manufacturing Engineering programs. All course work must be approved by the student's academic advisor and by the Graduate School. Specific requirements for each Master's program are available from the Industrial Engineering Program.

International Manufacturing Certificate

An applied internship in a local manufacturing plant that promotes learning, hands-on experience and industrial practice by applying international manufacturing management and engineering fundamentals from IMS 4360 and 4361. The student will intern in a manufacturing facility and work on problems ranging from testing and inspection, design, quality, production and inventory control, maintenance, purchasing, planning and scheduling, safety and ergonomics, tooling, to accounting, etc. Students will have an industry mentor, a faculty mentor, and a field engineer helping them in the manufacturing problems. The mid-term and final examinations will consist of a written report and presentation based on the research/design/analysis performed in a manufacturing department to the faculty mentor and industrial partner.

For Undergraduate and Graduate Students

Industrial Engineering (IE)

Courses that may be applied toward the Master of Science degree in Industrial Engineering.

4395 Special Topics in Industrial Engineering

For Graduate Students Only

Industrial Engineering (IE)

5195 Graduate Seminar (1-0)

Lectures and discussions of various topics in industrial engineering by faculty, graduate students, and speakers from industry and other institutions. Required for all non-thesis graduate students each semester they are in the graduate program. This seminar will be counted only once toward graduate degree requirements.

5316 Advanced Work Design (3-0)

This course will focus on the theoretical and practical issues concerning the design of work. It will provide a thorough coverage of the principles of industrial safety, plant layout and design, and methods engineering from a productivity and quality man-machine system perspective. The course will consist of lectures, class discussions, and student projects.

5330 Industrial Statistics (3-0)

Industrial statistics techniques such as generating functions, multivariate transformations, modes of convergence, limit theorems, parametrical statistical models,

sufficiency, estimation, confidence intervals, hypothesis testing, optimal tests, and large sample theory. A strong emphasis is placed on the application of statistical techniques to industrial problems. *Prerequisite:* Department approval.

5332 Advanced Concepts in Safety Engineering (3-0)

Survey of industrial Safety Engineering topics to include hazard control principles, tools and machines, materials handling, noise and vibration, chemicals, ventilation, hazardous waste, personal protective equipment risk assessment, facility development process and safety, risk management and assessment, system safety, and accident investigation and analysis. This course will consist of lectures and class discussions. A semester project is an integral part of this course. *Prerequisite:* IE 3332 or IE 4332 or department approval.

5341 Advanced Production and Inventory Control (3-0)

This course emphasizes inventory control management for production planning and includes topics in inventory control, forecasting, lot sizing, dispatching, scheduling, releasing, kitting, MRP and just-in-time models. Strong emphasis on the solution and research of existing production and inventory control problems. *Prerequisite:* Department approval.

5351 Linear and Combinatorial Optimization Methods (3-0)

Deterministic operations research techniques such as linear programming and its extensions, duality theory, sensitivity analysis, network related models, integer programming, and dynamic programming. Applications include production planning and project networks such as PERT/CPM. *Prerequisite:* Department approval.

5352 Design and Analysis of Industrial Experiments (3-0)

Investigation of statistical sampling methods, hypothesis testing procedures, and design of experiments. Both parametric and non-parametric procedures are included. *Prerequisite:* IE 4385 or department approval.

5354 Advanced Engineering Economy (3-0)

Capital budgeting, deterministic investment analysis, probabilistic engineering economy, manufacturing cost models, utility theory, and computer applications to engineering economy. *Prerequisite:* BE 2326 or department approval.

5357 Computer Simulation Applications (3-0)

An introduction to the concepts of simulation methodology as applied to the design and analysis of industrial systems. Specialized computer simulation language is applied to an industrial analysis or design term project. *Prerequisite:* Department approval.

5377 Advanced Ergonomics and Process Design (3-0)

This course emphasizes the tools, techniques, concepts, and theories of ergonomics and human performance criteria for work in the manufacturing environment. Emphasis is on the design and evaluation of workstations, man-machine systems, and processes. *Prerequisite:* Instructor approval.

5385 Advanced Quality Control (3-0)

This course covers current advances in quality control. The emphasis of the course is on continuous quality improvement. The course will concentrate on advanced quality control topics including, but not limited to, process, capability analysis, philosophies of quality management, advanced statistical process control, quality costs, and automated quality control. *Prerequisite:* Department approval.

5387 Quality Engineering (3-0)

Topics such as quality organization, quality assurance, quality policies and objectives, quality information systems, metrology, inspection and testing, quality planning, quality function deployment, and supplier quality assurance. Quality standards and legal issues with respect to quality such as torts, negligence, and contracts will also be addressed. A semester project is an integral part of this course. *Prerequisite:* Department approval.

5390 Special Topics (3-0)

Advanced topics of contemporary interest in industrial engineering. May be repeated for credit when topic varies. *Prerequisite:* Instructor approval.

5391 Individual Studies (0-0-3)

Individual variable-credit for non-thesis related research, design, or analysis on advanced phases of Industrial Engineering problems conducted under the direct supervision of a faculty member. A maximum of three credit hours may be applied towards the MS degree. *Prerequisite:* Department approval.

5394 Graduate Research (0-0-3)

Individual variable-credit research of contemporary topics in industrial engineering. *Prerequisite:* Department approval.

5397 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of industrial engineering problems, conducted under the direct supervision of a faculty member. *Prerequisites:* IE 5396 and instructor approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisite:* IE 5398.

Manufacturing Engineering (MFG)

5195 Graduate Seminar (1-0)

Lectures and discussions of various topics in Manufacturing Engineering by faculty, graduate students, and speakers from industry and other institutions. Required for all non-thesis graduate students each semester they are in the graduate program. This seminar will be counted only once toward graduate degree requirements.

5291 Individual Studies (0-0-2)

5391 Individual Studies (0-0-3)

Individual variable-credit for non-thesis related research, design, or analysis on advanced phases of Manufacturing Engineering problems conducted under the direct supervision of a faculty member. A maximum of three credit hours may be applied towards the MS degree. *Prerequisite:* Department approval.

5311 Design for Manufacturability (3-0)

Theoretical and practical aspects of the implications that the manufacturing process has on the design activities will be studied. Issues such as rapid prototyping, tolerancing, geometric modeling, capabilities of manufacturing processes, design for quality and maintainability and others will be covered. The course will consist of lectures, class discussions, and student projects.

5312 Strategic Design of Manufacturing Processes (3-0)

Strategic and tactical aspects of the design of manufacturing processes will be covered in this course. Techniques such as concurrent engineering, quality function deployment, group technology, process planning, and others will be covered. The course will consist of lectures, class discussions, and student projects.

5314 Robotics and Flexible Automation (3-0)

Modern concepts of robotics and flexible automation including power and control mechanisms, flexible material handling systems, programmable controllers, interfacing and end-of-arm tooling. *Prerequisite:* Department approval.

5320 Tooling Engineering (3-0)

Design of tooling for various manufacturing processes such as plastic injection, metal casting, stamping, forming, etc. Materials properties, tolerances, cost, and tool interchangeability are covered.

5321 Modeling and Analysis of Manufacturing Processes (3-0)

This course is designed to be a capstone course for the graduate students of manufacturing engineering. The student will be expected to use the appropriate analytical tools to formulate, model, and solve real-life manufacturing problems. At the end of the course the student will give an open presentation of the results of the term project.

5322 Materials in Manufacturing Processes (3-0)

This course will focus on the selection of materials for manufacturing processes. In particular it will cover the properties of different materials as they apply to manufacturing such as: formability, machinability, hardening, weldability. It will also cover different types of materials such as: metal alloys, plastics, composites, ceramics, and adhesives. The course will consist of lectures, class discussions, and student projects. *Prerequisites:* CE 2334 and MME 2303.

5350 Reliability and Maintainability (3-0)

This course deals with the application of reliability theory in engineering design. In particular, the course covers reliability functions and gives broad guidelines for designing reliability into a given situation and for determining the appropriate level of reliability. Accelerated testing, reliability management, the relationship between reliability and quality and maintainability and its management will also be covered. *Prerequisite:* Department approval.

5359 Computer-Aided Manufacturing (3-0)

Modern concepts of using computers for manufacturing, including the theory of computer numerical control (CNC) and direct numerical control (DNC), CNC milling, CNC tuning and computer-aided process design. *Prerequisite:* Instructor approval.

5360 Computer Vision (3-0)

Fundamental concepts associated with the construction of meaningful descriptions of physical objects from images; including image segmentation, two-dimensional and three-dimensional representations, knowledge representations, and matching and inference.

5362 Graphical Elements of Computer-Aided Design and Manufacturing (3-0)

Modern concepts of using computer graphics for engineering design and manufacturing, including computer graphics standards such as CORE graphics and GKS, graphic input/output devices, and software design and programming techniques for computer-aided design and manufacturing (CAD/CAM). *Prerequisite:* IE 5359.

5394 Graduate Research (0-0-3)

Individual variable-credit research of contemporary topics in Manufacturing Engineering. *Prerequisite:* Department approval.

5397 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of engineering problems conducted under the direct supervision of a faculty member. *Prerequisites:* MFG 5396

and department approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.

Prerequisite: MFG 5398.





Mechanical Engineering

101 Engineering Science Complex
(915) 747-5450
meandie@utep.edu

PROGRAM CHAIRPERSON: Jack Dowdy
GRADUATE FACULTY: Bronson, Chessa, Choudhuri, Cooke, Craver, Dowdy, Everett, Kim, Wicker

Mechanical Engineering offers a Master of Science in Mechanical Engineering and an undesignated Master of Science with a major in Engineering. Specific courses of study in the Mechanical Engineering major include fluid and thermal systems, and solid mechanics and machine design.

Requirements for Admission

Students should consult the Introduction to the College of Engineering section for information on general admission requirements.

General Requirements for Degree

Both thesis and non-thesis options are available under these two degree programs. Students enrolled in a thesis option follow a 31-hour program that is composed of 24 hours of course work plus 6 hours of thesis (MECH 5398, and MECH, 5399) and 1 hour of graduate seminar.

Non-thesis students follow a 36-hour program. For the Mechanical Engineering degree, the non-thesis option may include up to 6 credit hours for Graduate Projects (MECH 5396 and MECH 5397). All students enrolled in the Mechanical Engineering program must take at least 18 semester hours of course work within their major if they are following the thesis option or 24 if they are following the non-thesis option.

No more than 6 semester hours of approved upper-level undergraduate course work may be used to satisfy the degree requirements in the Mechanical Engineering programs. All course work must be approved by the student's academic advisor and by the Graduate School. Specific requirements for each Master's program are available from the Program.

For Undergraduate and Graduate Students

Mechanical Engineering (MECH)

Courses that may be applied toward the Master of Science degree in Mechanical Engineering.

4355 Gas Dynamics

4395 Special Topics in Mechanical Engineering

For Graduate Students Only

Mechanical Engineering (MECH)

5194 Graduate Research (0-0-1)

5394 Graduate Research (0-0-3)

5694 Graduate Research (0-0-6)

Individual variable-credit research of contemporary topics in mechanical engineering. *Prerequisite:* Department approval.

5195 Graduate Seminar (0-0-1)

Conferences and discussions of various topics in mechanical engineering by faculty, graduate students, and speakers from industry and other institutions. Required of all graduate students during each semester of full-time enrollment.

5302 Advanced Mechanics of Materials I (3-0)

An introduction to the theory of elasticity and the principles of stress and strain. Solution of some elasticity problems such as bending and shear of beams, torsion of bars. Energy method and stability. *Prerequisite:* CE 2334.

5303 Advanced Heat Transfer I—Conduction (3-0)

Conduction in various coordinate systems; steady and transient-state cases with various boundary conditions; analytical, numerical, and graphical solutions. *Prerequisite:* MATH 2326 or MATH 3326 or instructor approval.

5304 Advanced Heat Transfer II—Convection (3-0)

Thermal boundary layer theory; forced convection in laminar and turbulent flow; free convection. *Prerequisite:* MECH 5303 and department approval.

Normal boundary-layer theory, forced convection in laminar and turbulent flows; free convection. *Prerequisite:* MECH 3354 or department approval.

5306 Advanced Fluid Mechanics I (3-0)

Survey of the principal concepts of fluid mechanics, statics, continuity, momentum and energy relations for continuum fluids, kinematics of fluid motion, governing equations for motion of non-viscous fluid, vorticity and circulation, and Kelvin's theorem. Helmholtz theorem, Crocco's theorem, stream function, potential flow, conformal transformation, theory of lift, and wave phenomena in fluids. *Prerequisite:* MECH 3354 or department approval.

5308 Advanced Mechanical Design (2-3)

Study of the method of optimum design for mechanical systems. Evolution of optimum design; approximation for explicit design; mathematical functions in design, evaluation of the effects of manufacturing errors on product performance, optimum choice for method of analysis, statistical consideration for factor of safety, adequate design, optimum design, design equations, normal redundant and incompatible specifications; loose limits and loose specifications; problems with more than one primary design equation.

5309 Structural Dynamics (3-0)

Continuation of MECH 3365 with emphasis on multiple degree-of-freedom systems and their response to disturbances. Normal mode theory, and matrix representation of problem; Laplace transform, electrical analogue and mobility techniques of solution. Vibration measurements and analysis.

5310 Advanced Thermodynamics (3-0)

Applications of general thermodynamic relations; study and applications of time-dependent energy relationships; analysis of power, refrigeration, cryogenic and direct energy conversion systems. *Prerequisite:* MECH 3376 or instructor approval.

5312 Advanced Mechanics of Materials II (3-0)

Traditional approach to mechanics of materials with topics such as failure theories, fatigue, beams on an elastic foundation, stress concentrations, thick-walled and laminated cylinders, contact stresses, and inelastic behavior. *Prerequisite:* MECH 5302.

5318 Advanced Dynamics (3-0)

Velocity and acceleration analysis, motion of a point in space, rotating coordinate systems, balancing of masses; generalized coordinates, work and energy, and impulse and momentum. *Prerequisite:* MECH 2338 or equivalent.

5390 Special Topics (3-0)

Advanced topics of contemporary interest in mechanical engineering. May be repeated for credit when topic varies. *Prerequisite:* Department approval.

5391 Individual Studies (0-0-3)

Individual variable-credit for non-thesis related research, design, or analysis on advanced phases of Mechanical Engineering problems conducted under the direct supervision of a faculty member. A maximum of 3 credit hours may be applied towards the MS degree. *Prerequisite:* Department approval.

5396 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of engineering problems conducted under the direct supervision of a faculty member. *Prerequisite:* Department approval.

5397 Graduate Projects (0-0-3)

Individual research, design, or analysis on advanced phases of engineering problems conducted under the direct supervision of a faculty member. *Prerequisites:* MECH 5396 and department approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.

Prerequisite: MECH 5398.



Metallurgical and Materials Engineering

M201 Engineering Science Complex
(915) 747-5468
metal@utep.edu

PROGRAM CHAIRPERSON: Lawrence E. Murr
GRADUATE FACULTY: Arrowood, Fisher, Golding, McClure, Murr, Stafford, Trueba, Varma

Graduate students in Metallurgical and Materials Engineering are involved with academic studies and research programs that focus on understanding the structure, properties, processing, and performance of materials, including the development of new or improved materials and advanced processing methods. These are the critical links between the design and the realization of new materials systems. Materials and materials limitations pervade all of the engineering and high technology fields that are an integral part of our society and its economic infrastructure. The challenges and opportunities for graduates in metallurgical and materials engineering are certainly exciting and exceptional.

The Metallurgical and Materials Engineering Department offers a Master of Science with a major in Metallurgical and Materials Engineering and an undesignated Master of Science with a major in Engineering.

Requirements for Admission

Students should consult the Introduction to the College of Engineering section for information on general admission requirements.

Applicants whose undergraduate degrees are not in metallurgical or materials engineering (i.e., related engineering or physical sciences field) may need to successfully complete specific undergraduate deficiency work as recommended by the department's Academic Advisory Committee.

Additionally, applicants must submit evidence of successful completion (or equivalent) of course work that includes:

- MVE 3306 Rate Processes in Materials Systems
- MVE 3308 Applied Chemical Thermodynamics
- MVE 3309 Introduction to Electronic Materials Science
- MVE 3406 Physical Metallurgy

Requirements for the Degree

Students may select one of the following programs:

Thesis Program - 24 semester hours of course work plus

6 semester hours of thesis (MVE 5398 and MVE 5399)
30

Project Program - 30 semester hours of course work plus

6 semester hours of project (MVE 5396 and MVE 5397)
36 total semester hours minimum

Students may apply a maximum of 9 semester hours of approved undergraduate courses toward the MS degree with the approval of the Graduate Advisor and the Graduate School.

Thesis work should clearly demonstrate the ability to execute independent, innovative research. The research should be original and make a contribution to the state of the art. Thesis work is the substance of the MS degree. It must be written, in whole or in part, as a technical paper and submitted for publication prior to the awarding of the degree. The student should be the senior (first) author. The required sequence of courses below are designed to apply the principles of thermodynamics, transport, reaction kinetics, crystal defects, and other materials fundamentals in contemporary materials engineering areas involving and reinforcing issues of structure, properties, processing, and performance. All students must successfully complete these courses with a 3.0 GPA:

- MVE 5302 Materials Extraction, Synthesis, and Processing
- MVE 5401 Microstructural and Microchemical Characterization of Materials
- MVE 5403 Advanced Concepts in Materials Science and Engineering
- MVE 5304 Phase Transformations and Microstructures

Advisory Committees

The Academic Advisory Committee, as well as the Graduate School, will normally approve all academic program proposals and monitor academic progress of all graduate students until a thesis or research program advisor is chosen and a Research Advisory Committee developed. This can be done at any time after the student matriculates into the MS program. The Research Advisory Committee normally consists of the research advisor (who serves as chair) and at least one additional member of the department faculty and one faculty member from another academic department. An additional member of the committee from another academic department is often desirable if a concentration is involved, bringing the committee size to four members. All members must be members of the Graduate Faculty. Students are required to meet with their Research Committee at least once per year, usually in the Spring semester.

Undesignated Degrees

A student holding a Bachelor of Science with a major in Metallurgical and Materials Engineering or a related materials area may work toward a 33 semester hour undesignated MS in Engineering degree without a thesis, leading to a concentration in an area outside of the major. The course work includes 18 hours in the major field and at least 12 hours in the particular area of concentration. The work in the major field includes credit for MVE 5396 (Graduate Project). Possible areas of concentration are indicated below.

Concentrations

Possible concentrations for an undesignated degree or to complement a research area or to achieve a broader materials background may involve Business Management, Operations Research, Structural Mechanics, Electronic Device Design and Development, Experimental Design, Manufacturing Engineering emphasizing advanced manufacturing and Materials Processes, Waste Materials Management, and the like. Some examples of other engineering courses which might contribute to developing these areas include the following:

Civil Engineering

- CE 5305 Advanced Structural Analysis
- CE 5312 Environmental Processes
- CE 5317 Similitude and Statistical Methods

Electrical Engineering and Computer Science

- CS 5310 Computer Graphics
- EE 5311 Semiconductor Devices
- EE 5312 Advanced Optoelectronic Devices

Mechanical/Industrial/Manufacturing Engineering

IE/

- MECH 5351 Linear and Combinatorial Optimization Methods
- IE 5352 Design and Analysis of Industrial Experiments
- IE 5359 Computer-Aided Manufacturing
- IE 5362 Graphical Elements of Computer-Aided Design and Manufacturing

MECH/

- IE/MFG 5390 Special Topics in Mechanical, Industrial, and Manufacturing Engineering

Students from other science or engineering disciplines may wish to develop a concentration in Metallurgical and Materials Engineering or Materials Engineering. In general, a concentration could be developed by considering the core program:

- MVE 5302 Materials Extraction, Synthesis, and Processing
- MVE 5304 Phase Transformations and Microstructures
- MVE 5401 Microstructural and Microchemical Characterization of Materials
- MVE 5403 Advanced Concepts in Materials Science and Engineering

Other concentrations could be developed by other groupings of courses or areas represented by course groupings. The first three core courses shown above from the MS program are also articulated with the Ph.D. program core in materials science and engineering. Students completing the MS degree in Metallurgical and Materials Engineering and pursuing the Ph.D. degree in Materials Science and Engineering may waive MASE 5302, 6400, and 6402, substituting work as recommended by the Graduate Advisor.

Ph.D. in Materials Science and Engineering

The Department of Metallurgical and Materials Engineering is a participant in a multidisciplinary program leading to the Ph.D. degree in Materials Science and Engineering. For information regarding admission and degree requirements, students should consult the Interdisciplinary Studies section.

Metallurgical and Materials Engineering (MME)

For Undergraduate and Graduate Students

- 3309 Introduction to Electronic Materials Science
- 3314 Composite Materials
- 3321 Engineering Alloys
- 3406 Physical Metallurgy
- 3407 Mechanical Behavior of Materials
- 4303 Metals Processing
- 4309 Corrosion
- 4316 Failure Analysis
- 4404 Materials Processing
- 4405 Materials Fabrication
- 4413 Structural Characterization
- 4419 Metallurgical and Materials Engineering Design

For Graduate Students Only

5191 Individual Studies (0-0-1)

5391 Individual Studies (0-0-3)

Individual variable-credit research, design, or analysis on advanced phases of metallurgical and materials engineering problems conducted under the direct supervision of a faculty member. A maximum of 3 credit hours may be applied towards the MS degree.

5194 Graduate Research (0-0-1)

5294 Graduate Research (0-0-2)

5394 Graduate Research (0-0-3)

5494 Graduate Research (0-0-4)

5594 Graduate Research (0-0-5)

5694 Graduate Research (0-0-6)

Individual variable-credit research of contemporary topics in metallurgical and materials engineering.

5195 Graduate Seminar (1-0)

Conferences and discussions of various, contemporary topics in metallurgical and materials engineering by faculty, graduate students, and speakers from industry, government, or other academic institutions or departments. The program is organized to encourage the development of communications skills at a professional level for graduate students. Required of all graduate students during each semester of full-time enrollment. Up to 3 credits can be applied to the degree.

5302 Materials Extraction, Synthesis, and Processing (3-0)

Thermodynamic, thermochemical, electrochemical, kinetic, and phase equilibrium fundamentals and fundamental structures and properties of materials applied to examples of ferrous and non-ferrous extraction and processing. Examples include copper extraction, refinement, processing, alloying and performance; iron and steel making and iron alloy processing, metal and ceramic powder processing, and contemporary materials synthesis and processing. Offered in alternate years.

5304 Phase Transformations and Microstructures (3-0)

The theory of the nucleation and growth kinetics of solid materials, solid-solid transformations, and mechanisms. Rate processes, decomposition and ordering reactions, and microstructures. Diffusionless transformations, eutectoid and martensitic transformations are covered along with associated microstructural morphologies and property/ performance control by microstructure control in materials.

Prerequisites: MVE 3406, MVE 3407, and MVE 5401, or equivalent, or instructor approval.

5308 Mechanical Behavior of Materials (3-0)

The underlying principles of elastic and plastic deformation of metals, ceramics, polymers, and composite materials will be developed. Topics include dislocation theory, slip, twinning, microstructures, and high and low temperature deformation behavior (tensile properties, creep, and fatigue) of crystalline and amorphous materials. Offered in alternate years. *Prerequisite:* MVE 2303 or equivalent, or instructor approval.

5313 Advanced Materials and Composites (3-0)

Properties and structures of composite materials and design of composite systems to yield desired combinations of properties. Metal, ceramic, and polymer composite systems as well as high-performance alloy systems or microcomposites. Applications of materials and composite fundamentals to manufacturing and processing. Offered in alternate years. *Prerequisite:* MVE 5401, MVE 5403, or equivalent, or instructor approval.

5390 Special Topics (3-0)

Advanced topics of contemporary interest in metallurgical and materials engineering. May be repeated for credit when topic varies.

5396 Graduate Projects (0-0-3)

Initial work on the project. Individual research, design, or analysis on advanced phases of engineering problems conducted under the direct supervision of a faculty member. The courses, including a written report, are required of all students in the non-thesis option.

5397 Graduate Projects (0-0-3)

Continuous enrollment required while work on the project continues. Individual research, design, or analysis on advanced phases of engineering problems conducted under the direct supervision of a faculty member. The courses, including a written report, are required of all students in the non-thesis option. *Prerequisite:* MVE 5396.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisite:* MVE 5398.

5401 Microstructural and Microchemical Characterization of Materials (3-3)

An interdisciplinary approach to the theory and applications of techniques for characterizing chemical (microchemical) and microstructural features of solid materials. Techniques that will be stressed include X-ray diffraction, optical metallography, scanning and transmission electron microscopy (emphasizing analytical transmission electron microscopy), electron probe microanalysis, and surface and near surface microanalysis (Auger electron spectroscopy, ESCA, SIMS, etc.). Sample preparation techniques will be covered and students will be encouraged to examine materials which may have some application to their research problems. Offered in alternate years.

Prerequisite: MME 4413 or equivalent introductory background in topic areas, or instructor approval.

5403 Advanced Concepts in Materials Science and Engineering (4-0)

A blend of contemporary solid state physics and chemistry emphasizing structure and properties and including processing (synthesis) and performance, illustrated by various classes of materials: structural, electronic, magnetic, photonic, and superconducting. Fundamental issues and applications will include: crystal structure and crystal chemistry; disorder/order imperfections; phase equilibria, phase diagrams, phase transformation; reaction rates, kinetics, thermodynamics; microstructures in processing and performance; materials design/materials by design.



COLLEGE OF HEALTH SCIENCES

- [College of Health Sciences](#)
- [Health Sciences](#)
- [Health Promotion](#)
- [Kinesiology](#)
- [Rehabilitation Sciences-OT, PT, SPLP](#)
- [Pharmacy](#)
- [Public Health](#)





College of Health Sciences

The College of Health Sciences offers a Ph.D. in Interdisciplinary Health Sciences, masters programs in Public Health, Kinesiology, Occupational Therapy, Physical Therapy, and Speech-Language Pathology and a certification program in Speech Language Pathology.

The Ph.D. in Interdisciplinary Health Sciences is designed to respond to the growing national shortage of doctorally-trained professionals in health-related fields and to address significant health research needs related to communities in the United States-Mexico border region.

The Master of Public Health (MPH) is a professional degree that prepares students for careers in public health. The MPH Program has a concentration in Hispanic and Border Health. The program provides students with a competitive edge by providing them with the knowledge and analytical and technical skills needed to be an effective leader in the public health field.

The Master of Science in Kinesiology is directed toward students who wish to: (a) increase their knowledge and competency as professional physical educators, (b) complete a master's degree in preparation for continuing their education in a doctoral program, (c) enhance their knowledge in the various exercise science areas, or (d) prepare for higher level jobs in the many professions that deal with human movement and physical activity.

The Master of Science in Occupational Therapy is dedicated to preparing occupational therapists to serve as interdisciplinary health professionals in rural and urban settings in a variety of health care areas.

The Master of Physical Therapy will qualify students to take the Texas (and other State) licensure examination in Physical Therapy. Successful completion of the examination allows the graduate to practice Physical Therapy.

The Master of Science degree in Speech-Language Pathology will qualify students for Texas License and certification by the American Speech, Language, Hearing Association in Speech-Language Pathology. A Certificate Program is provided in Bilingual Speech Language Pathology (English/Spanish)

The College of Health Sciences also participates in cooperative degree programs with the University of Texas at Austin and the University of Texas Health Science Center, Houston. In cooperation with The University of Texas at Austin, College of Pharmacy, UTEP offers a doctoral program in Pharmacy. Students may also attend classes offered on the UTEP campus to obtain a Master's in Public Health from The University of Texas Health Science Center, Houston. And finally, in cooperation with the University of Texas Health Science Center, Houston, School of Nursing, a Doctor of Science in Nursing is available. For more information on these cooperative programs, students should consult the Graduate School section, under the Cooperative Programs heading.







Ph.D. in Interdisciplinary Health Sciences

1101 N. Campbell
(915) 747-7256
insphd@utep.edu

PROGRAM DIRECTOR: Tom Olson

The Ph.D. in Interdisciplinary Health Sciences is designed to respond to the growing national shortage of doctorally educated professionals in health-related fields and to address significant health research needs related to communities in the U.S.-Mexico border region. The program embraces an interdisciplinary model of teaching and learning that seeks holistic perspectives on health-related issues. Thus, this degree will encompass classes taught by faculty from the various disciplines within the College of Health Sciences and the School of Nursing. Disciplines include Nursing, Physical Therapy, Health Promotion, Occupational Therapy, Speech-Language Pathology, Kinesiology, as well as Public Health. Courses included from programs outside the College of Health Sciences and the School of Nursing include those in Psychology and Biology.

Graduates from this program will have research skills, core knowledge in health sciences, and knowledge in their areas of specialization. The areas of core knowledge include background, concepts, and literature in the health disciplines, methods of scholarly inquiry in applied and clinical health topics; cultural and ethnic diversity and their effects on health care and research; ethical issues in health care and research; and skills to enhance success in academia and other leadership roles. Individuals will be prepared to educate future health professionals, conduct needed research, and fulfill leadership roles.

Requirements for Admission

Admission to the Ph.D. program in Health Sciences requires completion of a Master's degree in a health-related profession. The program admissions committee will make recommendations to the Graduate School based on an assessment of each applicant's academic achievement and potential. Applicants must apply through the Graduate School, submitting an application form and supporting materials:

- Transcripts according to the requirements of the Graduate School
- Official scores on the Graduate Record Exam
- Official scores on the TOEFL (if appropriate)
- Three letters of recommendation from individuals qualified to assess the applicant's potential for doctoral work
- Personal statement describing career aspirations, potential research interests and faculty mentors, and research experiences
- Other evidence of relevant personal or professional experience

Requirements for the Degree

Degree requirements consist of 60 credit hours beyond the master's degree.

Semester Hour Requirements

| | |
|--------------------------|----|
| Core Courses | 21 |
| Professional Preparation | 6 |
| Individualized Program | 12 |
| Research | 21 |

Core courses (21 semester credit hours):

| | | |
|------|------|--|
| PSYC | 5310 | Statistics I: Applied Correlation and Regression Methods |
| PSYC | 5311 | Statistics II: Experimental Design |
| CHSC | 6301 | Multicultural Influences on Health Care and Research |
| CHSC | 6302 | Legal and Ethical Issues in Health Sciences |
| CHSC | 6303 | Proseminar in Interdisciplinary Health Sciences I |
| CHSC | 6396 | Advanced Research Methods |

And a 3-hour measurement course selected from list below or other similar course as approved.

| | | |
|------|------|------------------------------------|
| PSYC | 5306 | Attitudes and Attitude Measurement |
| PSYC | 5323 | Psychometrics |

Professional Preparation courses (Select 6 semester credit hours):

| | | |
|------|------|---|
| CHSC | 6343 | Health Profession Education: Academic and Administrative Roles and Responsibilities |
| CHSC | 6345 | Designing Educational Programs in Health Professions |
| CHSC | 6347 | Innovative Teaching Strategies in the Health Professions |
| CHSC | 6349 | Evaluation in Health Professions Education |
| CHSC | 6350 | Seminar in Scientific and Grant Writing |
| CHSC | 6355 | Communications and Team Process |
| EDAD | 6309 | Seminar in Educational Leadership |
| HSCI | 5352 | Evaluation in Health Promotion/Education |

Individualized Program courses (Select 12 semester credit hours)

- CHSC 6360 Health Policy
- CHSC 6380 Special Topics in the Health Professions
- EDAD 6316 Qualitative Research Methodology II
- MATH 5391 Time Series Analysis
- PSYC 5306 Attitudes and Attitude Measurement
- PSYC 5331 Cross-Cultural Research Methods

All graduate courses in the College of Health Sciences, the School of Nursing, or graduate courses at the UTHSC-Houston School of Public Health available through the El Paso Regional campus may be used to meet program requirements as approved by the student's supervisory committee.

Research (Select 21 semester credit hours-courses may be repeated for credit)

- CHSC 6385 Independent Study in the Health Sciences
- CHSC 6388 Research Application
- CHSC 6390 Directed Study
- CHSC 6398 Dissertation
- CHSC 6399 Dissertation

Non CHSC course descriptions can be found under the corresponding departments. Public Health El Paso (PHEP) courses can be found on-line. Program course descriptions are listed below.

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

College of Health Sciences (CHSC)

6301 Multicultural Influences on Health Care and Research (3-0)

Focus on the influence of various cultures (e.g. racial, ethnic, socio-economic, age related and geographic) on health care delivery and research. Cultural patterns, beliefs and expectations related to health care and health outcomes are explored and analyzed. Research methods, recruitment of subjects, data collection procedures and instrumentation are analyzed in relationship to various cultural groups. Priority needs for health care and research in various cultural groups are compared. *Prerequisite:* Department approval.

6302 Legal and Ethical Issues in Health Sciences (3-0)

A study of legal and ethical principles and theory with emphasis on how they apply to the provision of health services and pursuit of health research in culturally diverse settings. The course examines standard and emerging [e.g. Ethics of Care] theories and principles of ethics and the laws related to health services and offer in-depth look at how these theories and principles apply in ethnically diverse practice settings and research. *Prerequisite:* Department approval.

6303 Proseminar in Interdisciplinary Health Sciences (0-0-3)

Survey of key concepts including health, wellness, illness, disease, and comparison and contrast of advantages and disadvantages of monodisciplinary education, research, and practice, compared with multi- and inter-disciplinary models and approaches. Involves in-depth review of key theoretical concepts in health, the philosophy of science and the process of scientific inquiry, and expectations for doctoral-level work. *Prerequisite:* Department approval.

6343 Seminar in Health Professions Education: Academic and Administrative Roles and Responsibilities (3-0)

Issues, roles and responsibilities of faculty and administrative appointments in academic and health science centers will be discussed. Other topics may include faculty appointment models, tenure process, faculty practice, clinical and affiliation agreements, finances, personnel, legal issues and public policy, internal/external governance, curricular and accreditation issues, and external relations. *Prerequisites:* Admission to the doctoral program and department approval.

6345 Designing Educational Programs in Health Professions(3-0)

The steps of program and curriculum development will be examined as applicable to selected health profession education. The process of accreditation will be included. *Prerequisites:* Admission to the doctoral program and department approval.

6347 Innovative Teaching Strategies In the Health Professions(3-0)

Creative and innovative approaches to teaching to facilitate learning in didactic and clinical settings for health professions education will be explored. Application of selected learning theories will be addressed. Meaningful applications for web-enhanced and online delivery will be examined within context of optimal learning. *Prerequisites:* Admission to the doctoral program and department approval.

6349 Evaluation in Health Professions Education (3-0)

The systematic process of evaluation of learning in didactic and clinical settings related to health profession education will be addressed. Models and processes for curriculum and educational program evaluations will be explored. *Prerequisites:* Admission to the doctoral program and department approval.

6350 Seminar in Scientific and Grant Writing (3-0)

This course will address two skills associated with success in academia: productive scientific writing and successfully obtaining research funding through grant writing. Students will learn the common components of scientific manuscripts and grant application. The course also will address how to overcome common barriers to writing productivity. *Prerequisites:* Completion of leveling research project, if required by the doctoral program, and department approval.

6355 Communication and Team Process (3-0)

This course will address two important issues in relation to successful interdisciplinary teams: communication across health care disciplines and the team process. Topics to be covered will include effective communication, team development, establishing working relationships, conflict management and resolution, as well as evaluation and assessment of team outcomes. Team-based learning will be utilized in order to facilitate the team process. *Prerequisites:* Admission to the program and department approval.

6360 Health Policy (3-0)

A study of major issues and problems in the formulation and establishment of health policy at the local, state, and federal levels. The course would explore foundational and emerging areas of health practice focusing on cultural and ethnic differences in access and practice, public health policy focusing on changes in demographics and reimbursement of services, local and federal health research agendas, and how each of these affects health care, research and education, with an emphasis on examples relevant to the border region. *Prerequisite:* Department approval.

6380 Special Topics in the Health Professions(3-0)

Course content may change. Possible topics include current topics integrating basic and clinical health science; organization and finance of health care systems; prevention and intervention research. May be repeated for credit when topics vary. *Prerequisite:* Department approval.

6385 Independent Study in the Health Sciences (0-0-variable 1-3)

Conduct intensive study on a health science topic with faculty supervision. Course content and requirements will be determined by the instructor but a comprehensive review paper suitable for publication is typical. May be repeated for credit as topic varies. *Prerequisite:* Department approval. Instructor permission required.

6388 Research Applications (0-0-variable 1-3)

Supervised research on topics in applied and clinical health sciences in designated laboratories. May be repeated for credit as topic varies. *Prerequisite:* Department approval. Instructor permission required.

6390 Directed Study (0-0-3)

Conduct intensive study on a health science topic. May be repeated for credit as topic varies. *Prerequisites:* Admission to the doctoral program and department approval. Instructor permission required.

6396 Advanced Research Methods (3-0)

Course focuses on the principles and application of human health-related research methods. Topics include research problem identification, study planning, data collection, statistical analysis, interpretation of findings, and dissemination of results. *Prerequisite:* PSYC 5310 with a grade of "B" or better or PSYC 5311 with a grade of "B" or better, or other graduate level statistics course with a grade of "B" or better.

6398 Dissertation (0-0-3)

The student must register for CHSC 6398 when work on the dissertation is begun. Thereafter, the student must register for CHSC 6399 during each semester in which work on the dissertation is being conducted. *Prerequisites:* Approval of the dissertation proposal and the completion of CHSC 6390 under the supervision of a different faculty supervisor than the faculty supervisor proposed for this course.

6399 Dissertation (0-0-3)

The student must register for CHSC 6399 during each semester in which work on the dissertation is being conducted, for up to 3 semesters total. *Prerequisites:* CHSC 6398 and department approval.



Health Promotion

1101 N. Campbell, Room 717
(915) 747-8214
hsci@utep.edu

INTERIM CO-CHAIRS: Maria O. Duarte-Gardea and Mary-Margaret Weigel
GRADUATE ADVISOR: Cruz
PROFESSORS: Shedlin, Weigel
ASSOCIATE PROFESSORS: Armijos, Cruz, Duarte-Gardea, Smith, Thompson, Tomaka
ASSISTANT PROFESSORS: Rosenthal

Prospective graduate students in the Department of Health Promotion may select either the Master of Public Health (MPH), the MA in Education with a Health Education emphasis, or the MEd (Instructional Specialist major) with a concentration in Health Education. The department is no longer accepting new students for the MS in Health Promotion degree. Graduate course offerings in health education, health promotion, community and school health are open to students in the MPH program and graduate programs across campus. The department welcomes student inquiries to facilitate planning a course of study.

The MPH degree is the most widely recognized and highly regarded credential for public health professionals. The MPH program at UTEP prepares students for public health careers in the public, non-profit, and private sectors. The program is directed toward individuals with prior health experience or who have a strong commitment to public health. The Hispanic and Border Health concentration prepares students for public health practice in Hispanic and border communities.

Students in the MPH program take core courses designed to develop knowledge, analytical and technical skills in five fundamental public health competencies: social and behavioral sciences, health services administration and policy, epidemiology, environmental health and biostatistics. The required practicum provides MPH students with an opportunity to apply the public health theory and skills they have learned in a practice setting. Students also learn through the completion of a "culminating experience." This requires a student to synthesize, integrate, and apply knowledge and skills gained through coursework and other learning experiences. The culminating project for the MPH Program at UTEP consists of a thesis or graduate research project.

The Master's Education emphasis and the MEd with a Health Education emphasis are designed for individuals teaching or employed in schools.

Graduate students must maintain a CGPA of 3.0 in order to remain in good academic standing. Grades of "C" or below are not considered acceptable graduate level work. Students who receive a "D", "F" or more than two "C" grades in their courses will be dismissed from the graduate program.

Master of Public Health (MPH)

Admission Requirements

To be considered for admission into the MPH Program, prospective applicants must submit an application and the following documents to the UTEP Graduate School.

- Completed baccalaureate degree from an accredited U.S. institution or recognized foreign institution
- Minimum 3.0 cumulative GPA on 4.0 scale for prior degree(s)
- GRE or MCAT scores in accordance with UTEP graduate admissions requirements
- Minimum TOEFL exam score of 213/550 (foreign applicants)
- Three letters of recommendation from professional references. At least one of these should be from an academic reference (e.g., former professor)
- A 500-word essay describing any prior health experience and reasons for pursuing the MPH

Program

The Master of Public Health (MPH) is an interdisciplinary program that requires students to complete 42 credit hours of course work: 15 credit hours of core courses, 9 credit hours in the Hispanic and Border Health Concentration, 6 hours of practicum, and the remaining credit hours from a combination of course electives and a culminating experience (thesis or graduate project). Selective courses are chosen in conjunction with the faculty mentor with Graduate Advisor approval.

Master of Arts in Education (with a Health Education emphasis)

Students should refer to the appropriate section under the College of Education in the *Graduate Catalog*.

Master of Education – Instructional Specialist Major (with a Health Education emphasis)

Students should refer to the appropriate section under the College of Education in the *Graduate Catalog*.

Students seeking the MS in Health Promotion should be advised by the Graduate Advisor for the Department of Health Promotion in the College of Health Sciences. Students seeking the Master of Arts in Education or the Master of Education - Instructional Specialist degree should be advised by the Graduate Advisors in both the College of Education and the College of Health Sciences.

For Graduate Students Only

Public Health (PUBH)

5302 Epidemiology for Public Health Professionals (3-0)

Core course considers the meaning, scope, and applications of epidemiology to the practice of public health practice and the uses of statistics for the scientific appraisal and dissemination of public health data. *Prerequisite:* One prior UG or GR statistics course with grade of B or better.

5304 Environmental Health (3-0)

Core course examines the environment and its relationship to human health and disease. Focuses on the physical, chemical, biological and behavioral-social factors of the human environment. Emphasizes environmental health and environmental health hazard principles and concepts.

5305 Biostatistics in Public Health (3-0)

Core course focuses on the analysis, interpretation, and presentation of public health data. Overview of measurement methods, descriptive statistics, confidence intervals and hypothesis testing, sample size and power calculations, analysis of variance and multiple comparisons; correlation and regression; multiple regression and statistical control of confounding; logistic regression; and survival analysis. *Prerequisite:* One prior UG or GR statistics course with grade of B or better.

5307 Health Services Administration and Policy (3-0)

Core course examines organizational skills and basic principles, theories, and practices of administering public health programs in voluntary and governmental agencies. Also focuses on leadership, motivation, small group process, problem solving, conflict resolution, inter-organizational relationships, and organizational change.

5321 Responding to Chronic and Infectious Diseases in Hispanic and Border Communities (3-0)

Introduction to basic principles of chronic and infectious disease prevention and control. Emphasis on diabetes, hypertension, cardiovascular disease, asthma, cancer, HIV/AIDS, and TB. Critical analysis of the magnitude, distribution, risk factors, and public health significance of selected chronic and infectious diseases in community and institutional settings.

5322 Eliminating Health Disparities (3-0)

Examination of theoretical models, causes, consequences, and solutions related to health and health care disparities in Hispanic and other minority communities. Students engage in community service learning project to gain deeper understanding of the socio-cultural, economic, geographic, environmental, nutritional, political, and individual factors that contribute to community health disparities.

5352 Public Health Evaluation and Research (3-0)

Examination of the issues, problems, and techniques involved in the evaluation of public health programs and public health research.

5353 Social and Behavioral Approaches in Public Health (3-0)

Core course examines the cultural, social, economic, psychological, and behavioral factors that influence health and illness. Critical evaluation of social and behavioral science principles, theories, techniques and research used for understanding and resolving public health problems. Emphasis on Hispanic, border, and other diverse multicultural communities

5357 Selected Topics in Public Health (0-0-3)

Course content varies. Topics focus on current issues and challenges related to public health. May be repeated, maximum of nine hours

5358 Independent Study (0-0-3)

Investigation and analysis of public health issues and challenges. Field assignments may be required. May be repeated, maximum nine hours. *Prerequisite:* Department approval.

5397 Graduate Research Project (0-0-3)

Individual research or development of a project/proposal on a public health topic under the direct supervision of a graduate faculty member. Requires satisfactory completion of the course, including a written report and oral presentation. *Prerequisite:* Department approval.

5662 Practicum in Public Health (0-0-6)

Field internship experience in public health agency or work site setting under supervision of preceptor and university graduate faculty. Requires a significant project proposal approved by instructor and a final written report. *Prerequisite:* Department approval.

5398 Thesis I (0-0-3)

Initial work on the thesis. *Prerequisite:* Department approval.

5399 Thesis II (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisites:* PUBH 5398 and department approval.

Health Science (HSCI)

5350 Curriculum Development for Health Promotion (3-0)

Various Curriculum models and the mechanics of construction and implementation; principles, issues, and problems of curriculum design in health promotion programs.

5351 Promotion/Education of Human Sexuality and Family Life (3-0)

Factors relating to the significance of sexuality as a function of being human; the philosophy, content, methods, resources, and evaluation related to the provision of sexuality and family life programs.

5352 Evaluation in Health Promotion/Education (3-0)

Issues, problems, and techniques involved in evaluation of health promotion and health education programs.

5353 Health Promotion Issues and Delivery Strategies (3-0)

Health promotion methodology in public schools, the work site, community health, health care facilities and the private sector; behavioral theories, educational strategies, and learning theories.

5354 School Health Program Promotion (3-0)

School health program with emphasis on instruction, services, healthful living, administrative and legal aspects, professional preparation, major issues, wellness programs (including school-based clinics), and controversial instructional content.

5355 Foundations of Health Promotion/Education (3-0)

Study of historical and philosophical perspectives of health promotion and health education, analysis of literature, which has influenced the development of health promotion and education programs and the concept of health, and investigation of ethical issues in health promotion.

5356 Planning and Administering Health Promotion Programs (3-0)

Study of methods and models of planning health promotion and health education programs for various settings, including theories and principles of administration and management of health promotion programs, with focus on coordination of services and supervision of staff.

5357 Selected Topics in Health Promotion (3-0)

Content of course may change. Possible topics include current issues and problems in health promotion, community health, health and safety. May be repeated, maximum of nine hours.

5358 Independent Study in Health Promotion (0-0-3)

Investigation and analyses of health/wellness and health promotion concerns. Field assignments may be required. May be repeated, maximum nine hours. *Prerequisite:* Department approval.

5359 Grant Proposal Preparation in Health Professions (3-0)

This course will address grant writing skills in finding and choosing appropriate funding sources, learning common components of grant applications, and overcoming common barriers to writing grant proposals, and successfully obtaining funding.

5397 Graduate Projects (0-0-3)

Individual research or development of a project/proposal under the direct supervision of a graduate faculty member. Requires satisfactory completion of the course, including a written report and oral presentation. *Prerequisite:* Department approval.

5398 Thesis (0-0-3)

Initial work on the thesis. *Prerequisite:* Department approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisites:* HSCI 5398 and department approval.

5662 Internship in Health Promotion (0-0-6)

Internship in community health agency or work site setting under supervision of preceptor and university graduate health science faculty. Requires a significant project or proposal approved by instructor and a narrative component which will follow a written format. *Prerequisite:* Department approval.



Kinesiology

1101 N. Campbell, Room 502
(915) 747-7245
rmdiaz@utep.edu

CHAIR: Harry Meeuwsen
PROFESSOR: Meeuwsen
ASSOCIATE PROFESSOR EMERITUS: Garland O'Quinn
ASSOCIATE PROFESSORS: King, Smith
ASSISTANT PROFESSORS: Dorgo, Vella
CLINICAL ASSISTANT PROFESSOR: Pederson

The Master of Science degree with a major in Kinesiology is directed toward students who wish to: (a) increase their knowledge and competency as professional physical educators, (b) complete a master's degree in preparation for continuing their education in a doctoral program, (c) enhance their knowledge in the various exercise science areas, or (d) prepare for higher level jobs in the many professions that deal with human movement and physical activity.

Admission Requirements

For **admission** into the master's program in Kinesiology, students must present:

1. An undergraduate degree in Kinesiology or a related field from an accredited institution with an overall GPA of at least 3.0 on a 4.0 scale.
2. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework.
3. TOEFL score of at least 550 (paper based; 213 computer based; 80 internet based) for those students for whom English is a foreign language. Score of at least 600/250/100 required for TA positions.
4. Written Statement of Purpose for pursuing graduate degree
5. Other evidence of background and experience that may be available.

For **conditional admission** into the master's program in Kinesiology, students must present:

1. An undergraduate degree from an accredited institution with an overall GPA of at least 2.8 on a 4.0 scale.
2. At least 12 hours of undergraduate Kinesiology core courses approved by the program graduate advisor.
3. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework.
4. TOEFL score of at least 550 (paper based; 213 computer based; 80 internet based) for those students for whom English is a foreign language. Score of at least 600/250/100 required for TA positions.
5. Written Statement of Purpose for pursuing graduate degree
6. Other evidence of background and experience that may be available.

Grade Requirements for the MS in Kinesiology

The following applies to fully admitted students. Any grade of "D" or "F" will result in a referral to the full Kinesiology Graduate Faculty for review. Barring extenuating circumstances, this will result in a recommendation to the Graduate School for dismissal from the Kinesiology Graduate Program. A grade of "C" is not considered acceptable graduate level work. One grade of "C" is permitted so long as the overall GPA does not fall below 3.0. A second "C" will result in a referral to the full Kinesiology Graduate Faculty for review. Barring extenuating circumstances, this will result in a recommendation to the Graduate School for dismissal from the Kinesiology Graduate Program.

Degree Requirements for the MS in Kinesiology

A total of 36 hours, distributed as follows:

Core Courses Required of All Students (15 hours)

Kinesiology

| | | |
|-----|------|------------------------------|
| KIN | 5361 | Biomechanical Basis of Sport |
| KIN | 5372 | Advanced Exercise Physiology |
| KIN | 5373 | Motor Learning and Control |

Statistics-Choose one course from the following list:

| | | |
|------|------|--|
| KINO | 6370 | Introduction to Statistics (offered online) |
| PSYC | 5310 | Statistics I: Applied Correlation and Regression |
| EDRS | 5340 | Advanced Statistics |
| SOCI | 5312 | Seminar in Advanced Measurement and Inference |
| STAT | 5328 | Introduction to Statistical Analyses |

Research Methods-Choose one course from the following list:

| | | |
|------|------|-------------------------------------|
| DRSC | 5389 | Research in Health Science |
| KINO | 6372 | Research Methods (offered online) |
| EDRS | 5305 | Educational Research and Statistics |
| EDRS | 5306 | Qualitative Research |

HSCI 5352 Evaluation in Health Promotion/Education

PSYC 5311 Statistics II: Experimental Design

The graduate advisor may approve other statistics and /or research methods courses.

Students will choose to concentrate in either Exercise Science or Pedagogy of Physical Activities.

Exercise Science Concentration

The Exercise Science concentration will supplement students' knowledge about laboratory practice and prepare them for careers in fitness, clinical and research settings. Although taking online courses can satisfy some of the requirements, a student must take the required traditional laboratory courses to complete this concentration. The 36-hour program will include the common core (15 hours) plus the following courses.

Exercise Science Courses:

KIN 5371 Measurement Techniques in Exercise Physiology

KIN 5374 Measurement Techniques in Biomechanics

Electives:

9 hours from Kinesiology or related area

All elective hours are subject to approval by graduate advisor.

***Project Option:**

KIN 5397 Graduate Project

3 hours from Kinesiology or related area

or

***Thesis Option:**

KIN 5398 Graduate Thesis I

KIN 5399 Graduate Thesis II

*The project or thesis will relate to an exercise science topic

Pedagogy of Physical Activity Concentration

The Pedagogy of Physical Activity concentration will supplement students' knowledge about teaching and/or coaching settings. A student can fulfill the requirements for this option completely online or by combining traditional and online courses. The 36-hour program will include the common core (15 hours) plus the following courses:

Pedagogy of Physical Activity Courses:

KIN 5365 Programs of Physical Activity or

KIN 5369 Physical Activities for Young Children (offered online)

KIN 5367 Effective Instruction in Physical Education or

KINO 6352 Analysis of Teaching and Coaching Behavior (offered online)

Electives:

9 hours from Kinesiology or related area

All elective hours are subject to approval by graduate advisor.

***Project Option:**

KIN 5397 Graduate Project

3 hours from Kinesiology or related area

or

***Thesis Option:**

KIN 5398 Graduate Thesis I

KIN 5399 Graduate Thesis II

* The project or thesis will relate to a pedagogy topic

Online Master's Degree

UTEP collaborates with five other UT System universities to offer the courses necessary to earn the Master's Degree in Kinesiology with an emphasis in Pedagogy of Physical Activities completely online through the UT System TeleCampus. Although this degree was designed to meet the needs of students who are unable to attend traditional classes, the courses can also be used to supplement the course work taken by traditional students enrolled in the graduate program at UTEP.

The online program has the same admission and the degree requirements as the traditional program. Online courses offered by the other UT System universities can count toward the UTEP degree.

For more information regarding the Online Degree, students can visit the UT TeleCampus Kinesiology web page <http://www.telecampus.utsystem.edu/catalog/programs/programinfo/kinesiology.aspx> or contact Dr. Darla R. Smith (darsmith@utep.edu) or Dr. George A. King, Graduate Coordinator (gking@utep.edu)

Kinesiology (KIN)

5361 Biomechanical Basis of Sport (3-0)

Advanced level kinesiological, mechanical, and physiological aspects as a basis for physical education. *Prerequisite:* KIN 4313 or instructor approval. Course fee required.

5362 Administration and Supervision of Physical Education Programs (3-0)

The application of administration and supervisory techniques in physical activity programs.

5363 Sociological Foundations of Physical Activity and Sports (3-0)

Socio-psychological processes, principles, and factors affecting the behavior of humans in physical activity and sport. Investigation of current socio-psychological problems with implications for physical education and athletic coaching.

5364 Advanced Topics in Kinesiology (3-0)

Course focuses on advanced topics and/or current issues in Kinesiology. May be repeated for credit.

5365 Programs of Physical Activity (3-0)

Factors affecting the selection of physical activity participation in various settings and cultural environments.

5367 Effective Instruction in Physical Education (3-0)

This course focuses on effective teaching and learning strategies in physical education. Students gain experience in a range of teaching styles as well as skills in systematic observation techniques for analyzing and improving teaching. *Prerequisite:* Department approval.

5368 Coronary Intervention (2-3-0)

The primary focus of this course is in electrocardiographic interpretation and exercise stress testing of at risk populations. Additional discussion topics include the anatomy and physiology of the cardiovascular system, electrophysiology, pathology of cardiovascular disease, risk factor analysis, prevention programs, and cardiac rehabilitation programs. *Prerequisite:* Department approval. Laboratory fee required.

5369 Physical Activities for Young Children (3-0)

A study of the various physical activities pursued by young children ages four to eleven along with the contribution made by each to physical development.

5370 Practicum in Exercise Science (0-0-6)

Assignment to professionals in the field of exercise or therapy in the community for a minimum of 90 clock hours. A daily log of experience will be required.

5371 Measurement Techniques in Exercise Physiology (3-0)

Techniques and equipment used in assessing strength, cardiorespiratory efficiency, and other components of physical fitness. *Prerequisite:* Instructor approval. Course fee required.

5372 Advanced Exercise Physiology (3-0)

Advanced study of the physiological adaptations that occur in response to acute and chronic exercise. Examination of these changes as they affect training, performance, and health. *Prerequisite:* Instructor approval. Course fee required.

5373 Motor Learning and Control (3-0)

Current theories and concepts involved in the processes of motor skill acquisition and performance from a behavioral perspective. Major topics include the methodology of studying motor performance, information processing, sensory and central contributions to motor control, coordination, individual differences, conditions of practice, feedback, retention and transfer and the learning process. Practical application of principles is emphasized. *Prerequisite:* KIN 2332 and department approval.

5374 Measurement Techniques in Biomechanical Analysis (3-0)

An in-depth study of the methods used in the Biomechanics Laboratory. Topics include techniques related to cinematography, video analysis, force transducers, data filtering, and collection of human body characteristics. *Prerequisite:* Instructor approval. Course fee required.

5375 Advanced Scientific Principles in Strength Training and Conditioning (3-0)

Advanced concepts and theory related to maximizing human performance. Analysis of the conceptual, theoretical, and technical considerations of assessing, designing, and implementing strength training and conditioning programs with particular focus on analyzing and applying contemporary periodization concepts. *Prerequisite:* Department approval.

5377 Graduate Seminar in Current Issues (3-0)

Discussion and presentation of pertinent and current issues in the areas of physical education, exercise science, and sport. May not be taken more than one time.

5178 Directed Individual Studies (0-0-1)

5378 Directed Individual Studies (0-0-3)

Individual investigation of specific topics of interest. May be repeated for credit. *Prerequisites:* Instructor approval and program director approval.

5379 Graduate Research (0-0-3)

Department approved research in special areas of student or faculty interest. *Prerequisites:* Instructor approval and program director approval.

5380 Qualitative Analysis of Human Movement (3-0)

An integrated approach to qualitative analysis of human movement: students will improve their ability to observe movement, detect errors, and diagnose individual situations to help students, athletes, clients, or patients move more effectively, efficiently, and safely. *Prerequisite:* Department approval.

5397 Graduate Projects (0-0-3)

Individual research or development of a project/proposal under the direct supervision of a graduate faculty member. Requires satisfactory completion of the course, including a written report and oral presentation. *Prerequisite:* Permission of advisor.

5398 Thesis (0-0-3)

Initial work on the thesis. *Prerequisite:* Instructor approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisite:* KIN 5398.

Kinesiology Online Courses (KINO)

6310 Exercise Physiology (UT Permian Basin/UT Tyler)

This course provides a comprehensive survey of exercise physiology, examining muscular, metabolic, and cardio respiratory adaptations to acute and chronic exercise. Emphasis is on the major concepts in terms of normal responses to exercise. This course is a prerequisite for KINO 5312, Training and Conditioning Methods.

6312 Training and Conditioning Methods (UT Arlington/UT Permian Basin/UT Tyler)

This course involves the study of training and conditioning methods used to improve and sustain athletic performance. Students will study methods and programs used with athletes to develop aerobic endurance, muscular strength, and anaerobic power, as well as the underlying physiological bases of the training effects. *Prerequisite:* KINO 6310, Exercise Physiology or the equivalent.

6316 Applied Biomechanics (UT El Paso – KIN 5361)

Students will investigate the application of biomechanical principles to human motor skill performance in sport and exercise settings. Emphasis will be placed on the teaching and learning of motor skills, characteristics of skilled performance, and safety-related considerations.

6320 Sport Psychology (UT Permian Basin/UT San Antonio/UT Tyler)

Students will investigate psychological and social-psychological theories and current research pertaining to the study of sport and physical activity. Topics covered will include personality, anxiety, arousal, causal attribution, motivation, attention, self-confidence and exercise psychology. This course is a prerequisite for KINO 6322, Applied Psychology.

6322 Applied Sport Psychology (UT Permian Basin/UT San Antonio)

Students will develop an array of mental training techniques that have been used successfully by athletes and coaches to improve sport performance. How to use each technique as an athlete and teach it as a coach will be the primary objectives. This course takes an educational approach toward performance enhancement, not a clinical one. The mental training techniques include imagery, arousal regulation, somatic and cognitive stress management, concentration and attention control, positive self-talk, and goal setting. *Prerequisite:* KINO 6320 - Sport Psychology or equivalent.

6323 Exercise Psychology (UT Permian Basin)

Students will study the theoretical models and research related to the determinates of exercise adoption and adherence. Research related to the effects of exercise on mental health is also reviewed. Students are encouraged to apply their study of theory and research to the design of wellness, fitness, and health promotion programs in various settings of professional interest-education, corporate, and commercial.

6326 Motor Learning and Control (UT El Paso – KIN 5373)

Current theories and concepts involved in the processes of motor skill acquisition and performance from a behavioral perspective. Major topics include the methodology of studying motor performance, information processing, sensory and central contributions to motor control, coordination, individual differences, conditions of practice, feedback, retention and transfer and the learning process. Practical application of principles is emphasized.

6330 Sport and Society (UT Permian Basin)

This course, a critical examination of sport will be made. Students will examine opposing points of view related to the role of sport in various American institutions (political, economic, educational, religious) and by diverse sociocultural groups within these institutions. The impact of sport upon individuals and society will also be scrutinized (racism, sexism, elitism).

6340 History and Philosophy (UT Pan American)

Students will examine the historical development of kinesiology, physical education and sport from primitive to modern daytimes. Emphasis is placed on the role sport and physical education plays as part of the total educational system and how educational philosophy influences modern sport and physical education. Major philosophies will be investigated and applied to assist the student in developing her or his individual philosophy.

6342 Ethics in Health and Kinesiology (UT Tyler)

Students will examine ethical considerations encountered in professional areas related to health, exercise and sport. The students will learn to develop and evaluate ethical viewpoints based on theory and fundamental principles.

6346 Contemporary Issues in Health and Kinesiology (UT Tyler)

This course engages students in an analysis of selected contemporary controversial problems in the areas of health and human movement. Students will learn general principles and procedures related to rational development and evaluation of viewpoints, and will learn to apply these principles and procedures to specific controversies relevant to the professional interests and goals of the students in the class.

6348 US Health System (UT Tyler)

In this course students will better understand the extremely complex and rapidly changing U.S. health system. Though it is important for you as a student to appreciate the value of understanding our current healthcare system, healthcare systems are not holy and I believe they should be viewed with a degree of scholarly irreverence and skepticism. Students will be expected to cultivate a habit of demanding evidence as they peer into our diversified institutions and the minds of Americans who have created

such perplexing systems for doing things.

- 6350 Curricular Innovations** (UT Arlington/UT Permian Basin)
Students will examine current trends and issues in physical education curriculum development. The course content includes examples of program innovations, as well as current international, national (e.g., NASPE national standards), and local (e.g., TEKS in Texas) curriculum initiatives. Individually or as members of a small group, students will design physical education curricula to be implemented in their own schools.
- 6352 Analysis of Teaching & Coaching Behavior** (UT Permian Basin)
Students will survey a variety of instructional models available to teachers and coaches. They will learn to match the variety of behavioral assessment tools to the instructional model and the task-at-hand. They will apply behavioral assessment tools in learning to observe, describe, code, and analyze the behaviors that they are observing in physical education students, teachers, student athletes, coaches, spectators, or officials of an activity.
- 6354 Early Childhood Physical Activity** (UT El Paso – KIN 5369)
A study of physical activity in early childhood and its influence on child development to include types of physical activity and its relationship to emotions, health, social and physical growth and development.
- 6356 Issues in Adapted Physical Activity** (UT Arlington/UT Pan American)
This course is specifically designed to expand the roles and responsibilities of the teacher/coach in the current and the future inclusion settings. Students will analyze and evaluate issues, trends and research findings pertinent to adapted physical activity for students with disabilities.
- 6360 Administration of Physical Education and Athletic Programs** (UT Permian Basin) Students will investigate and apply administrative theories related to the administration of sport and physical education programs. Additionally, students will establish their program philosophy, perform budgeting and expenditure of funds, assignments, and examine legal issues associated with the administration of sport and physical education programs.
- 6370 Introduction to Statistics** (UT Permian Basin)
This course is designed for graduate students who require a basic understanding of statistics but have not previously had a statistics course. The course covers basic descriptive statistics, elementary probability, one- and two-population mean and variance comparisons, and an introduction to ANOVA, simple linear regression, and correlation. Graduate standing and an undergraduate course in mathematics at the level of college algebra or higher are assumed.
- 6372 Research Methods** (UT Pan American/UT Permian Basin/UT San Antonio)
The students will explore various types of research used in Kinesiology. The students will then develop a research question, formulate methodology and related statistical and measurement concepts, and write a research report. *Prerequisites:* None; a statistics course (KINO 6370) is highly recommended.
- 6380 Nutrition, Health, and Disease** (UT Tyler)
Study of basic nutrients, diets across the life cycle, and therapeutic diets for selected disease states.
- 6381 Sports Nutrition** (UT Tyler)
Study of nutrition as it relates to optimal training and performance of sports activities. *Prerequisite:* Graduate or upper-division undergraduate general nutrition course.



Rehabilitation Sciences

The Department of Rehabilitation Sciences is comprised of three master's degree programs – Occupational Therapy, Physical Therapy and Speech-Language Pathology. Each program has unique admission requirements and degree programs, outlined after the following departmental shared courses.

Department of Rehabilitation Sciences (DRSC)

5300 Ethics in the Health Sciences (3-0)

A study of the application of ethical principles, which includes the legal factors and professional behavior, which impact patient management and the rights of the consumer in the provision of medical and rehabilitation services.

5309 Cultural Competency and Sensitivity Applications (3-0)

Course will address patient participation fully in their social roles including interpersonal interaction, learning, education, community activities, and address the influence of predominate culture, ethnicity, religion, disability, gender, sexual orientation, and age.

5388 Pathophysiology for Health Sciences (3-0)

A study of pathophysiological processes at the cellular, tissue and system levels and their impact on the body systems secondary to disease or trauma-induced alterations to the regulatory mechanism in the human organism. The impacts of these damaged systems are discussed in terms of physical and occupational performance.

5389 Research in Health Science (2-1)

Introduction to research concepts which enable health professionals to read, apply and integrate health science research. The legal, moral and ethical role of service is presented.

5390 Neuroscience for Health Sciences (2-1)

A study of human neuroscience with an emphasis on normal and abnormal structures and functions of the nervous system across the lifespan with correlation of lesions to neurodysfunction and patient presentation.

5396 Medical Kinesiology and Biomechanics (2-1)

A study of the applications of biomechanical principles to the control of human movement is addressed. Examination of structural and functional status of joints, postural control, limb movement and their impact on functional activities.

5495 Anatomy for Health Sciences (2-2)

A study of the structure and function of the skeletal, muscular, and central and peripheral nervous systems of the human body. The course focuses on human anatomy through didactic methods and cadaver dissection of the trunk, extremities, head, neck, and internal organs.

5496 Medical Kinesiology and Biomechanics (3-1)

A study of the applications of biomechanical principles to the control of human movement is addressed. Examination of structural and functional status of joints, postural control, limb movement and their impact on functional activities.

Occupational Therapy

1101 N. Campbell, Room 500
(915) 747-8207
ot@utep.edu

DIRECTOR: Karen Funk
PROFESSOR EMERITA: Gretchen Schmalz
CLINICAL ASSOCIATE PROFESSOR: Funk
ASSISTANT PROFESSORS: Haltiwanger, Leech, Sipla
CLINICAL ASSISTANT PROFESSOR: Capshaw

Masters in Occupational Therapy

Occupational Therapy is a dynamic profession and an integral part of modern comprehensive health care. Occupational therapy is the use of purposeful activity or interventions designed to achieve functional outcomes which promote health, prevent injury or disability, and which develop, improve, sustain or restore the highest possible level of independence of any individual who has an injury, illness, cognitive impairment, psychosocial dysfunction, mental illness, developmental or learning disability, physical disability, or other disorder or condition. Occupational Therapy services are provided in a variety of settings, ranging from medical facilities to community health agencies, schools, and private practice.

The Occupational Therapy Program offers a Masters Degree in Occupational Therapy. While acceptance into the Masters Degree Program does not require prior completion of an undergraduate degree, the competitive nature of the admissions process makes it imperative that interested undergraduates follow a traditional undergraduate major (e.g., Health Promotion, Kinesiology, Biology, Psychology, Social Work, Anthropology, etc.) as they complete the program prerequisites and electives. In addition, undergraduates should be aware of the University Core Curriculum and its requirements as they plan a course of study that may lead to consideration for admission to the Masters Degree in Occupational Therapy.

Candidates with a Bachelor's degree will be given preference.

Admission Requirements

1. Completed application to the Graduate School
2. Completion of the University Core Curriculum prior to beginning the Masters Degree Program in Occupational Therapy
 - a. Applicants without a baccalaureate degree must complete UTEP Core Curriculum requirements
 - b. Applicants without a baccalaureate degree must complete a minimum of 12 hours at the upper division level (preferably within their major)
 - c. Students with a baccalaureate degree are exempt from the University Core Curriculum requirement.
3. A minimum overall GPA of 3.0 (on a four-point scale).
4. A minimum GPA of 3.0 (on a 4.0 scale) on occupational therapy prerequisites.
5. Transcripts according to the requirements of the Graduate School.
6. Submission of official Graduate Record Examination (GRE) scores.
7. Three letters of recommendation
8. Completion of an official interview of all eligible candidates.
9. Graduate application processing fee (\$30 US for permanent residents)
10. International students (when English is not the official or first language) must have a minimum score of 213/550 on TOEFL

Additional Requirements

Although not mandatory, it is recommended that applicants volunteer within an occupational therapy setting to gain exposure and experience to occupational therapy practice. Recommendations are 40-50 hours.

Degree Requirements

Applicants for the program should have completed the following undergraduate courses:

| a. Foundation Courses | Credits |
|--|---------|
| Medical Terminology | 1* |
| General Biology (with lab) | 4 |
| Human Anatomy and Physiology with Lab** | 4 |
| Science elective (recommended A&P II, Biology II, Chemistry, etc.) | 4 |
| Introduction to Psychology | 3 |
| Abnormal Psychology (or equivalent) | 3 |
| Other Social Sciences *** | 6 |
| Statistics for non-math majors | 3 |
| Human development across the entire life span | 3 |
| Technical Writing (or equivalent) | 3 |
| Total credits | 31 |

* Successful completion of a medical terminology competency exam will substitute for this prerequisite.

** Courses must cover the nervous, muscular and skeletal systems.

*** Courses incorporating group dynamics and research in social sciences are strongly recommended.

NOTE: In order to engage in clinical rotations, which are a crucial element in the curriculum, Occupational Therapy students must pass a background check. Therefore, applicants accepted to the Occupational Therapy program will be required to undergo and pass a background check prior to matriculation. Applicants are responsible for the costs in obtaining a background check report.

| b. Major Required Courses | Hours |
|---|-------|
| DRSC 5388 Pathophysiology for Health Sciences..... | 3 |
| DRSC 5389 Research in Health Science..... | 3 |
| DRSC 5390 Neuroscience for Health Sciences..... | 3 |
| DRSC 5495 Anatomy for Health Sciences..... | 4 |
| DRSC 5396 Medical Kinesiology and Biomechanics..... | 3 |
| OT 5136 Preceptorship Studies*..... | 1 |
| OT 5177 Graduate Seminar**..... | 1 |
| OT 5301 Analysis and Adaptation of Occupation I..... | 3 |
| OT 5302 Analysis and Adaptation of Occupation II..... | 3 |
| OT 5305 Upper Extremity Rehabilitation and Performance..... | 3 |
| OT 5312 Psychosocial Aspects of Occupation..... | 3 |
| OT 5315 Legal and Ethical Issues in Health Care..... | 3 |
| OT 5316 Leadership in Occupational Therapy..... | 3 |

| | | |
|---------|---|---|
| OT 5320 | Occupational Performance of Older Adults..... | 3 |
| OT 5324 | Occupational Performance in Early Intervention..... | 3 |
| OT 5325 | Occupational Performance in School Age Children..... | 3 |
| OT 5327 | Work and Human Occupation..... | 3 |
| OT 5328 | Occupational Performance of Adults I..... | 3 |
| OT 5329 | Occupational Performance of Adults II..... | 3 |
| OT 5332 | Environmental Influences on Living..... | 3 |
| OT 5424 | Occupational Performance in Mental Health..... | 4 |
| OT 5611 | Concepts and Foundations of Occupation Centered Practice... 6 | |

Total major required hours..... 67

* May be repeated with department approval

** Must be taken when student is concurrently enrolled in OT 5388 Project or OT 5399 Thesis

| Graduate Project or Thesis Required Hours | Hours |
|--|--------------|
| OT 5388 Graduate Project I or OT 5398 Thesis..... | 3 |
| OT 5389 Graduate Project II or OT 5399 Thesis..... | 3 |
| Total graduate project or thesis hours..... | 6 |

| Fieldwork (formerly Field Studies) | Hours |
|---|--------------|
| OT 5340 Fieldwork II First Rotation (weeks 1-6) <i>and</i> | 3 |
| OT 5341 Fieldwork II First Rotation (weeks 7-12)..... | 3 |
| OT 5342 Fieldwork II Second Rotation (weeks 1-6) <i>and</i> | 3 |
| OT 5343 Fieldwork II Second Rotation (weeks 7-12)..... | 3 |
| Total Fieldwork hours..... | 12 |

| Optional Elective Courses | Hours |
|--|--------------|
| OT 5250 Selected Topics in Occupational Therapy..... | 2 |
| OT 5350 Selected Topics in Occupational Therapy..... | 3 |
| OT 5252 Independent Study in Occupational Therapy..... | 2 |
| OT 5352 Independent Study in Occupational Therapy..... | 3 |
| OT 5338 Fieldwork II Elective..... | 3 |

Total Semester credit hours required for the degree..... 85

Occupational Therapy (OT)

For Graduate Students Only

5136 Preceptorship Studies (0-0-40)

Seminar and intensive practicum that integrates applications of theoretical knowledge in a variety of practice areas and client populations. *Prerequisite:* OT 5611 with a grade of "C" or better. May be repeated for credit with instructor approval.

5177 Graduate Seminar (0-0-1)

The capstone experience in which students discuss their ongoing projects/theses and for those who have completed their projects/theses present them in a colloquium setting. *Prerequisite:* Department approval.

5250 Special Topics in Occupational Therapy (2-0)

5350 Special Topics in Occupational Therapy (3-0)

Special topics of current interest. May be repeated for credit when topic varies. *Prerequisite:* Department approval.

5252 Independent Study in Occupational Therapy (0-0-2)

5352 Independent Study in Occupational Therapy (0-0-3)

Self-directed study planned to meet the learning objectives of the student in a special area of interest. *Prerequisite:* Department approval.

5301 Analysis and Adaptation of Occupation I (2-3)

Introduction to human occupation and occupational performance from a developmental and evolutionary perspective. Exploration of survival, recreational work and social occupations in individuals and societies; skill development in performance and teaching of selected tasks; and basic task analysis. *Prerequisite:* Department approval.

5302 Analysis and Adaptation of Occupation II (2-2)

Advanced principles of person-centered occupation and task analysis, integration of biomechanics and person/task/ environmental demands applied to daily living skills. *Prerequisites:* OT 5301 and OT 5611.

5305 Upper Extremity Rehabilitation and Performance (2-2)

Integration of foundational and theoretical knowledge and technical competencies in the evaluation, fabrication, modification, and application of orthotics and prosthetics to promote client occupation. Includes practicum.

5312 Psychosocial Aspects of Occupation (2-2)

Foundations and knowledge related to psychosocial occupational function throughout the lifespan; intrapersonal, interpersonal, group, and cultural dynamics; general approaches for occupational therapy intervention. Includes practicum. Must be passed with a minimum grade of "C". *Prerequisite:* Department approval.

5315 Legal and Ethical Issues in Health Care (3-0)

Principles and history of law and bioethics applied to the provision of health care services, the roles and responsibilities of the occupational therapy practitioner, and the rights of the consumer. Must be passed with a minimum grade of "C" or better.

5316 Leadership in Occupational Therapy (3-0)

Trends and influences that affect the delivery, evaluation and outcome of occupational therapy and the management skills needed for practice. *Prerequisites:* OT 5136 and OT 5611 each with a grade of "C" or better or instructor approval.

5320 Occupational Performance Older Adults (3-0)

Introduction to performance of older adults from a developmental perspective. Includes assessment and interventions unique to healthy and at-risk older adults in their social and physical environments. *Prerequisites:* PSYC 2310 with a grade of "C" or better and department approval.

5324 Occupational Performance in Early Childhood (2-3)

Introduction to the major theoretical frameworks, concepts, and models of practice used in occupational therapy evaluation and treatment of infants/young children from 0-5 years. An emphasis will be placed on analysis of abnormal movement patterns, parent/family education and training, and use of occupation as a therapeutic medium for intervention.

5325 Occupational Performance in School Age Children (2-3)

Integration of foundational knowledge, theoretical constructs, development-based models and treatment approaches for occupation-based evaluation and intervention with the pediatric population. Includes practicum.

5327 Work and Human Occupation (2-3)

Explores work and its role in human occupation. Emphasis is placed on theory, evaluation and intervention using outcome-based measurements for work readiness in a variety of populations. Includes practicum. *Prerequisites:* OT 5322, OT 5323 and OT 5611 each with a grade of "C" or better, or instructor approval.

5328 Occupational Performance of Adults I (2-3)

Integration of foundational knowledge, theoretical constructs, occupation-based evaluation and compensatory intervention principles for clients/families/caregivers to facilitate occupational role performance in the home, community, and natural environment. Includes practicum. *Prerequisites:* All foundation knowledge courses offered in the first summer, fall, spring, and second summer semester, or instructor approval.

5329 Occupational Performance of Adults II (2-3)

Integration of foundational knowledge and theoretical constructs in neurodevelopmental and sensorimotor evaluation and intervention with adults with neurological dysfunction. Includes practicum. *Prerequisites:* OT 5322, 5323, 5328, and OT 5611 each with a grade of "C" or better, or instructor approval.

5332 Environmental Influences on Living (2-3)

Advanced concepts of occupation and how the environment affects the lives of people. Needs assessment and community practice models are introduced with hands-on learning.

5338 Fieldwork II (0-0-20)

Intensive clinical or community-based practicum under the supervision of a registered occupational therapist (OTR). Six weeks or equivalent part-time. To provide the student with additional learning experience in an area of the student's choosing. This course is graded on a credit/no credit basis. *Prerequisite:* OT 5136 with a grade of "C" or better, and department approval.

5340 Fieldwork II-Rotation I (weeks 1-6) (0-0-20)

Intensive clinical or community-based practicum under the supervision of a registered occupational therapist (OTR). Course related fee required. *Corequisite:* OT 5341: Fieldwork II-Rotation I (weeks 7-12). *Prerequisite:* Department approval.

5341 Fieldwork II-Rotation I (weeks 7-12) (0-0-20)

Intensive clinical or community-based practicum under the supervision of a registered occupational therapist (OTR). Course related fee required. *Corequisite:* OT 5340: Fieldwork II-Rotation I (weeks 1-6). *Prerequisite:* Department approval.

5342 Fieldwork II-Rotation II (weeks 1-6) (0-0-20)

Intensive clinical or community-based practicum under the supervision of a registered occupational therapist (OTR). Course related fee required. *Corequisite:* OT 5343 Fieldwork II-Rotation II (weeks 7-12). *Prerequisite:* Department approval.

5343 Fieldwork II-Rotation II (weeks 7-12) (0-0-20)

Intensive clinical or community-based practicum under the supervision of a registered occupational therapist (OTR). Course related fee required. *Corequisite:* OT 5342: Fieldwork II-Rotation II (weeks 1-6). *Prerequisite:* Department approval.

5388 Graduate Project I (0-0-3)

Initial work on original development of a project/proposal under the direct supervision of a graduate faculty member. Requires satisfactory completion of the course, and a written report. May include practicum. *Prerequisites:* OT 5330 and OT 5388 each with a grade of "C" or better and department approval.

5389 Graduate Project II (0-0-3)

Continuous enrollment required while work on the graduate project continues. May include practicum. *Prerequisites:* OT 5330 and OT 5388 each with a grade of "C" or better and department approval.

5398 Thesis (0-0-3)

Initial work on original research of a thesis proposal under the direct supervision of a graduate faculty member. May include practicum. *Prerequisites:* OT 5330 and department approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. Includes practicum. *Prerequisites:* OT 5330 and OT 5398 and department approval.

5424 Occupational Performance in Mental Health (3-2)

Theory, principles, and applications of client-centered occupational therapy evaluation and interventions with consumers experiencing psychosocial dysfunction. Includes practicum. *Prerequisite:* OT 5312 with a grade of "C" or better.

5611 Concepts and Foundations of Occupation-Centered Practice (5-3)

Introduction to the profession and practice of occupational therapy. Professional conduct, occupational therapy history and theory, systems theory applied to the individual, family, and community, and human occupational performance in a variety of environments. Includes practicum. *Prerequisite:* Department approval.

Physical Therapy

1101 N. Campbell, Room 500
(915) 747-8207
pt@utep.edu

DIRECTOR: Mary Carlson
ASSOCIATE PROFESSOR: Carlson
CLINICAL ASSOCIATE PROFESSORS: Dillon, Ryberg
ASSISTANT PROFESSORS: Ko, Sipla
LECTURERS: Fisher, Walker

Accredited by the Commission for Accreditation of Physical Therapy Education

Physical Therapy is a health profession whose primary purpose is the promotion of optimal physical function. Physical therapists apply scientific principles to prevent and treat acute and chronic movement disorders. Physical therapy encompasses areas of specialization and includes the development of new approaches to more effectively meet existing and emerging health care needs. Other professional activities that physical therapists participate in include research, education, and administration.

The first year starts in late August, and extends into the following July. During this year, students complete courses in basic and clinical sciences and general physical therapy evaluation and treatment procedures. Students are introduced to legal, ethical and professional aspects of physical therapy and to the specialty area of cardiopulmonary physical therapy.

During the second year, which begins in late August and continues into the following July, students study the management of patients with orthopedic and neurological abnormalities. Courses also address concerns unique to geriatric patients. Students plan and conduct a research project under the supervision of faculty. Two full-time clinical experiences occur during the second year.

Most of the third year, which begins in late August and ends in May, is devoted to clinical education, with courses addressing Pediatrics and Management, and a final research project. The full-time clinical experiences during the second and third years of training occur at facilities located in various parts of Texas and the surrounding states, and the expense of re-locating and working at these sites are the student's responsibility. Graduates are eligible to take the Physical Therapy Board Licensure Examination to become licensed to practice physical therapy in Texas or other state of choice.

Admission requirements include an earned bachelor's degree including 49 semester hours of prerequisites. The Required Course List is attached. Note that a minimum overall GPA of 3.0 on four point scale, and a minimum GPA of 3.0 in prerequisite courses are required. In addition, 50 clock hours of volunteer or paid experience in a physical therapy setting is required, and must be supervised by a licensed physical therapist. The Graduate Record Exam (GRE) is also required, and while there is no minimum score required, the score will be considered in the competitive admissions process.

Starting in Fall of 2008, students must complete an undergraduate degree prior to beginning this program. Physical Therapy prerequisites must also be completed. Each qualified applicant is scheduled for an interview with the Admissions Committee.

For more information, or to receive an application packet, please contact the Administrative Assistant, Physical Therapy Program, 1101 North Campbell, El Paso, TX 79902-0581, (915) 747-8207, or e-mail uteppt@utep.edu.

A felony conviction may affect eligibility for Physical Therapy licensure in Texas. Questions may be answered by contacting the Texas Board of Physical Therapy Examiners, 333 Guadalupe, Suite 2-S10, Austin, TX 78701. You may also call the TBPE at 512.305.6953.

Minimum Admission Requirements

1. Bachelor's degree
2. Completion of 49 hours of required prerequisite courses
3. A minimum overall GPA of 3.0 (on a four point scale)
4. A minimum GPA of 3.0 (on a four point scale) in prerequisites.
5. 50 clock hours of documented volunteer or paid work experience in a physical therapy setting under the supervision of a licensed Physical Therapist.
6. One recommendation from a Physical Therapist who supervised your work or volunteer experience
7. Two recommendations from individuals concerning the attributes that qualify you for this program (these can be from physical therapists or others)
8. Graduate School Application (with fee, Student Profile and Statement of Purpose*)

The statement of purpose should address why you are interested in becoming a physical therapist

9. Official transcripts from all universities or colleges attended.
10. Official interview (by invitation)
11. Completion of TOEFL (Required of International Students, minimum score: 550)
12. GRE (Graduate Record Examination) Scores
13. A background check and drug screen are required once accepted into the program.

Completion of the above requirements makes a student eligible for selection, but does not guarantee admission to the Physical Therapy Program. Each qualified and competitive applicant is scheduled for an interview. The final selection is competitive, with 24 students accepted into each incoming class.

NOTE: In order to engage in clinical rotations, which are a crucial element in the curriculum, Physical Therapy students must pass a background check. Therefore, applicants accepted to the Physical Therapy program will be required to undergo and pass a background check prior to matriculation. Applicants will be responsible for the costs in obtaining a background check report.

Admission Requirements

Before admission to the Physical Therapy program, students must meet all admission requirements as stated below.

Prerequisite Courses

Forty-nine semester hours are required prerequisite courses. These courses must meet specified conditions¹ and include:

Prerequisite Course Requirements:

| Semester Hours | Subject | UTEP Course Number | Texas Common Course Number | EPCC Course Number |
|-----------------------|--|---|-----------------------------------|---|
| 8 | Biology Science Major Level w/ Lab | BIOL 1305/ 1107 & either BIOL 1306/ 1108 or BIOL 3414 or ZOOL 2406 | 1306/1106 3414 | BIO 1406 BIO 1407 No equivalent BIO 1412 |
| 4 | Physiology Upper level Course w/ Lab | <u>BIOL 4388/ ZOOL 4181</u> or ZOOL 4380/4181 | 4181 | No equivalent |
| 8 | Chemistry | CHEM 1407 & CHEM 1408 | 1406 & 1408 | CHEM 1411 & CHEM 1412 |
| 8 | Physics Precalculus level w/Lab | PHYS 1403 & PHYS 1404 | 1401 1402 | PHYS 1401 & PHYS 1402 |
| 6 | Psychology General & Development to include entire life span | PSYC 1301 & PSYC 2310 | 2301 2312 | PSYC 2301 & PSYC 2314 |
| 9 | English Must include composition | ENGL 1311 & ENGL 1312 & ENGL 3359 | 1301 1302 | ENGL 1301 & ENGL 1302 No equivalent |
| 3 | Speech | COMM 1301 or COMM 1302 | 1301 1303 | SPCH 1315 or SPCH 1321 |

| | | | | |
|---|---|-----------|------|-----------|
| 3 | Statistics Should include ANOVA, prefer psychology or education based course | PSYC 1303 | 2317 | PSYC 2317 |
|---|---|-----------|------|-----------|

¹ All prerequisites must be completed prior to beginning the professional course of study in the Fall. All prerequisites must be completed with a grade of "C" or better.

* Course meets University Core Curriculum requirement.

Admissions Process:

There are two deadlines for submission of admission packets each year. To be considered for Fall interviews, **all materials** must be received by November 1. To be considered for Spring interviews, **all materials** must be received by February 1.

Students should apply when they are within 2 semesters of completion of course requirements for admission. **Our objective is to fill the class with students who complete all course requirements by the end of the Spring Semester of the year for entrance into our program.** Completed applications will be reviewed semiannually in February and November. Interviews for qualified applicants will be scheduled in November and February/March for qualified applicants. Following the November interviews, exceptionally well-qualified students will be immediately accepted to the program. Other qualified applicants will be placed in a "pool", will remain in competition for class slots, and will be compared to subsequent applicants in March. The application process will close February 1 for all admissions. Applications remain open for one year (i.e., from date application fee is received by Graduate School). To continue to be considered after one year, one must reapply.

Application Requirements Checklist:

Date Sent: _____ **Activity** _____

- _____ (1) Application for Admission into the Graduate Degree Program
(w/completed Statement of Purpose and required fee)
- _____ (2) One official copy of all university transcripts (other than UTEP)
- _____ (3) Prerequisite Course Completion Form
- _____ (4) Course Completion Plan
- _____ (5) Student Profile Sheet
- _____ (6) Graduate Financial Assistance Application/Scholarship (Optional)
- _____ (7) GRE Scores (Official)
- _____ (8) TOEFL scores (international applicants only)
- _____ (9) Reference from supervising physical therapist
- _____ (10) Two references from individuals who have knowledge of the
attributes that qualify you for this program
- _____ (11) Physical Therapy Related Experiences Documentation Form

Selection Criteria

Completion of the above requirements makes a student eligible for selection but does NOT guarantee admission to the Physical Therapy Program. The final selection is competitive and based on academic course work and the other identified admission requirements.

All applications, supporting documentation, transcripts, and test scores should be sent to:

Graduate School (Physical Therapy)
601 W. Schuster
223 Academic Services Building
The University of Texas at El Paso
El Paso, Texas 79968
(915) 747-5491
gradschool@utep.edu

Inquires may be made to:

Physical Therapy Program
UTEP College of Health Sciences
1101 N. Campbell
El Paso, TX 79902-0581
(915) 747-8207

Professional Course of Study**5115 Clinical Education Seminar I (1-0)**

Students will be given the opportunity to discuss various aspects of the upcoming, affiliation (internships) such as patient treatment, legal/ethical, management, administration, and professional issues. Case studies from clinical experiences related to past semesters' course work will be presented. Use of the clinical education grading tool will be presented. Grading will be pass/fail. Restricted to MPT majors.

5123 Clinical Education Seminar II (1-0)

Students will be given the opportunity to discuss various aspects of the previous affiliation such as patient treatment, legal/ethical, administration, and professional issues. Grading will be pass/fail. Restricted to MPT majors.

5150 Independent Study (1-0)

An elective course that may include physical therapy evaluation and treatment techniques for special populations (e.g., geriatrics, pediatrics) or in specialized settings (e.g., aqua therapy, hypnotherapy), advanced anatomical dissection, gerontology, or computer operations.

5216 Research Methods for Physical Therapists (2-0)

Students will be given the opportunity: (1) to understand principles of research design as related to case studies, survey, basic clinical and applied studies; (2) to study selected techniques of statistical analysis including parametric, non-parametric, and single case; (3) to conduct a literature search; and (4) to learn how to critique and apply research findings.

5225 Specific Populations (2-0)

Focuses on physical therapy issues and medical management of the older adults, women and adolescents. Emphasis on common medical problems prevalent in these populations, and the impact on patient/client management and outcomes.

5226 Designing and Conducting Research in Physical Therapy (2-0)

Students will be given the opportunity: (1) to create a research proposal and (2) to present the research proposal, both written and oral, to faculty advisors.

5233 Behavioral Science Topics (2-0)

Students will be given the opportunity to: (1) recognize and respond to personal, cultural, and societal differences in how people seek and accept health care; (2) understand the multiple factors that impact personal health, wellness, and health care delivery; (3) study communication issues within a patient population; and (4) understand the advocate's role in physical therapy. Restricted to MPT majors.

5256 Research Project II (0-0-2)

Students will be given the opportunity to prepare and deliver an oral/poster presentation and final written paper on the topic of their research. Restricted to MPT majors.

5310 Legal, Ethical, and Professional Aspects of Practice (3-0)

Students will acquire knowledge of the ethical principles, legal factors and professional behaviors which impact patient management and the physical therapy profession.

5311 Thermal Agents and Electrotherapeutics (2-3)

Students will be given the opportunity: (1) to study the therapeutic effects of heat, cold, light, water, and electricity and the physiological effects on the nervous, vascular, and musculoskeletal systems; (2) to recognize the indications and contraindications for these modalities; and (3) to demonstrate the safe and effective application of these modalities. Laboratory fee required.

5312 Pathophysiology and Movement Science (3-0)

Focuses on the effects of disease and injury on human movement. Function at the cellular, tissue, and system levels will be discussed in both the normal and pathological states. *Prerequisite:* Department approval if student is not a PT major.

5317 Neuroscience for Physical Therapists (3-0)

Normal and abnormal structures and functions of the nervous system across the life span with correlation of lesions to neurodysfunction and patient presentation. Laboratory fee required.

5319 Orthopedics I: Basic Orthopedic Physical Therapy (2-3)

Focuses on basic examination, evaluation, and management of patients/clients with common orthopedic conditions of the extremities and spine. Laboratory fee required.

5320 Orthopedics III: Upper Quarter (2-3)

Focuses on the examination, evaluation and interventions for patients with common orthopedic conditions of the upper extremity and cervical and thoracic spine. Laboratory fee required.

5324 Clinical Education in Physical Therapy IV (0-0-16)

Students will be given the opportunity: (1) to apply advanced physical therapy knowledge and skills to patients in clinical settings or teaching and administrative skills in alternative settings, (2) to demonstrate entry-level clinical behavior, and (3) to integrate knowledge from previous academic and clinical coursework to the physical therapy care of patients. Grading will be pass/fail. Restricted to MPT majors.

5340 Management and Health Systems in Physical Therapy (3-0)

Students will be given the opportunity to: (1) understand basic management theories, principles, and practices related to health care delivery; (2) discuss alternative means and sources of health care delivery as they relate to physical therapy; (3) understand reimbursement sources and procedures; (4) recognize the administrative factors that impact health care delivery; and (5) determine the resources available within the community for health care practitioners and clients; and (6) apply concepts and strategies of marketing to the management of a physical therapy practice.

5346 Research Project I (0-0-3)

Students will be given the opportunity to conduct a supervised investigation and to analyze results in preparation for their final presentation. Repeat as necessary until data collection is completed. Restricted to MPT majors.

5406 Human Anatomy for Physical Therapists (2-6)

Students will be given the opportunity to study, in detail, the anatomy of the extremities, the trunk, muscles of the face, scalp and neck, the heart, lungs, and the surface of the brain. Laboratory fee required.

5407 Medical Kinesiology and Movement Science (3-3)

Focuses on the application of biomechanical principles as they apply to the control of human movement. Structure and functions of joints, postural control and basics of gait assessment are emphasized. Laboratory fee required. *Prerequisite:* Department approval if student is not a PT major.

5408 Introduction to Patient Care and Therapeutic Procedures (2-6)

Students will be given the opportunity to acquire knowledge and skill in basic patient care procedures including the following areas: (1) body mechanics; (2) tests and measures: vital signs, surface palpation, goniometry and sensory testing; (3) interventions-bed mobility, positioning and draping, transfers, gait, assistive devices, wheelchair training, therapeutic exercise and massage; and (4) lines, tubes and aseptic techniques. Laboratory fee required.

5409 Advanced Therapeutic Exercise and Muscle Testing (2-6)

Students will be given the opportunity to: (1) evaluate and document normal and abnormal physiological responses to various types of therapeutic exercise; (2) perform and record both manual and instrumental tests of muscle strength, length and endurance; (3) formulate functional goals and develop appropriate exercise programs for patients with selected pathological conditions; and (4) recommend appropriate exercise parameters for healthy individuals to promote physical fitness and wellness. Laboratory fee required.

5411 Neurorehabilitation I: Basic Adult Patient Management (2-6)

Physical therapy and patient/client management of persons with common adult neurologic disorders. Laboratory fee required.

5412 Neurorehabilitation II: Complex Adult Patient Management (2-6)

Physical therapy and patient/client management of persons with less common adult neurologic disorders with an emphasis on the more complex patient. Laboratory fee required.

5413 Clinical Education in Physical Therapy I (0-0-21)

A synthesizing course for students to apply knowledge acquired from the first year of the curriculum including, but not limited to, human anatomy, basic pathology and human physiology to the physical therapy care of patients/clients. Grading will be pass/fail. Restricted to MPT majors.

5414 Neurorehabilitation III: Pediatric Management (3-3)

The etiology and pathology of neurological and orthopedic dysfunction in the pediatric patient/client from birth through 18 years. Laboratory fee required.

5418 Cardiorespiratory Disorders and Other Medical Conditions (3-3)

Students will be given the opportunity (1) to develop knowledge of the etiology and pathology of selected medical conditions including cardiovascular disorders, diabetes, cancer, burns and other wounds, and renal and pulmonary disorders; and (2) to demonstrate knowledge and skill in the therapeutic management of patients with these conditions. Laboratory fee required.

5421 Orthopedics II: Lower Quarter (2-6)

Focuses on the examination, evaluation and interventions for patients with common orthopedic conditions of the spine, pelvis, and lower extremity. Laboratory fee required.

5425 Clinical Education in Physical Therapy II (0-0-21)

A synthesizing course to apply advanced physical therapy knowledge and skills to patients/clients in orthopedic settings and demonstrate competency in solving complex patient problems. Grading will be pass/fail. Restricted to MPT majors.

5443 Clinical Education in Physical Therapy III (0-0-21)

A synthesizing course to apply advanced physical therapy knowledge and skills to patients/clients in a primary neuro-rehab setting and demonstrate competency in solving

Speech-Language Pathology

1101 N. Campbell, Room 107
(915) 747-7250
spchlang@utep.edu

DIRECTOR: Anthony P. Salvatore
PROFESSORS EMERITI: Grace Middleton, Joseph A. Perozzi
PROFESSOR: Salvatore
ASSISTANT PROFESSORS: Biswas, Davis, Fjordbak, Nelson
CLINIC COORDINATOR: Valles

The Master of Science degree in Speech-Language Pathology is accredited by the Council on Academic Accreditation of the American Speech, Language, Hearing Association. Students who successfully complete the master's fulfill academic course work and clinical practicum requirements for the Certificate of Clinical Competence and the Texas License in Speech-Language Pathology.

Admission Requirements

1. Bachelor's degree from an accredited U.S. institution or equivalent degree at an international institution, or through the Five-Year degree plan.
2. Minimum of 21 semester hours of upper-division undergraduate courses related to communication disorders
3. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework (a minimum GPA of 3.0 in upper-division preparatory SPLP undergraduate courses)
4. Other evidence of background and experience that may be available.
5. A 213/550 or higher on the Test of English as a Foreign Language (TOEFL) for international applicants

Admission is competitive. The number admitted each semester is dependent on available program resources.

NOTE: In order to engage in clinical practicums, which are a crucial element in the curriculum, students in Speech Language Pathology must pass a background check. Therefore, applicants accepted to Speech Language Pathology will be required to undergo and pass a background check prior to matriculation. Applicants will be responsible for the costs in obtaining a background check report.

MS Degree Requirements

Majors in Speech-Language Pathology must complete the following:

1. A minimum of 33 required academic courses, in addition to registering for five semesters of clinical practicum (15 credit hours) all of which may be completed in five years.
2. A minimum of 400 clock hours of supervised clinical practicum is required. In addition, a minimum of 25 clock hours of supervised clinical observation must be completed during the graduate studies.

Comprehensive written project and oral examinations are required for students who choose not to write a thesis. Students who write a thesis are required to defend the thesis in an oral examination. Students who choose to write a thesis must enroll in SPLP 5398 and 5399.

Grade Criteria

1. A "D" or "F" grade in any graduate course will result in immediate dismissal from the graduate program and no reconsideration of the student for readmission will be taken.
2. No more than 2 "C" grades will be permitted. A third "C" grade will lead to immediate dismissal from the graduate program and no reconsideration of the student for readmission will be taken. If a "C" grade is earned, it must be matched with an "A" grade in a course within the program's required SPLP courses and this must be accomplished the semester (Fall/Spring/Summer) immediately following the semester the "C" was earned.

Required Courses (33 semester hours)

| | | |
|------|------|--|
| SPLP | 5320 | Research Design in Communication Disorders |
| SPLP | 5359 | Fluency Disorders |
| SPLP | 5360 | Aphasia and Related Disorders |
| SPLP | 5362 | Language Disorders in School-Aged Children |
| SPLP | 5363 | Phonatory Disorders of Voice |
| SPLP | 5364 | Motor Speech Disorders |
| SPLP | 5365 | Advanced Audiology |
| SPLP | 5375 | Articulation and Phonological Disorders |
| SPLP | 5376 | Multicultural Issues |
| SPLP | 5377 | Treatment Efficacy |
| SPLP | 5380 | Augmentive and Alternative Communication |

Practicum (15 semester hours)

| | | |
|------|------|---|
| SPLP | 5369 | Graduate Practicum in Speech-Language Pathology, University Clinic (x3) |
| SPLP | 5379 | Graduate Practicum in Speech-Language Pathology, School Setting |
| SPLP | 5389 | Graduate Practicum in Speech-Language Pathology, Hospital/Agency |

Electives

| | | |
|------|------|---|
| SPLP | 5310 | Gerontology and Communication Disorders |
|------|------|---|

| | |
|-----------|--|
| SPLP 5330 | Differential Diagnosis of Communication Disorders |
| SPLP 5367 | Conservation of Hearing |
| SPLP 5370 | Dysphagia |
| SPLP 5372 | Problems and Projects in Speech-Language Pathology |
| SPLP 5373 | Advanced Clinical Practicum in Audiology |
| SPLP 5374 | Problems and Projects in Audiology |
| SPLP 5398 | Thesis |
| SPLP 5399 | Thesis |

The graduate advisor must approve out-of-department graduate electives.

Recommended Sequence

First Year

| | |
|-------------------------------------|-------------------|
| Fall: SPLP 5320, 5362, 5369, 5376 | 12 semester hours |
| Spring: SPLP 5360, 5369, 5375, 5380 | 12 semester hours |
| Summer: SPLP 5369, 5377 | 6 semester hours |

Second Year

| | |
|--|------------------|
| Fall: SPLP 5364, 5365, 5379, or 5389 | 9 semester hours |
| Spring: SPLP 5359, 5363, 5379, or 5389 | 9 semester hours |
| Summer: SPLP 5379 or 5389 (if necessary) | 3 semester hours |

48 or 51 Total

Speech-Language Pathology (SPLP)

For Undergraduate and Graduate Students

4312 Neural Bases of Speech and Language

For Graduate Students Only

5172 Problems-Projects in Speech Language Pathology (0-0-2)

5272 Problems-Projects in Speech Language Pathology (0-0-2)

Special projects under faculty supervision. May be repeated for credit with a change in area of emphasis. *Prerequisite:* Department approval.

5300 Aural Rehabilitation (3-0)

Clinical aspects of habilitation and/or rehabilitation programs for deaf and hard-of-hearing children and adults. *Prerequisite:* SPLP 4309 or equivalent introductory course in audiology or audiometry.

5320 Research Design in Communication Disorders (3-0)

Typical and single-subject designs utilized in the research of speech, hearing, and language disorders.

5330 Differential Diagnosis of Communication Disorders (3-0)

Selection, application, and interpretation of formal and informal assessment procedures for the diagnosis and description of speech and language disorders. Topics include multicultural issues related to the diagnosis of communication.

5359 Fluency Disorders (3-0)

Theoretical foundations, diagnosis, and treatment of fluency disorders in children and adults.

5360 Aphasia and Related Disorders (3-0)

Study of the etiology, symptomatology, diagnosis, and treatment of aphasia and related neurogenic disorders including traumatic brain injury, right hemisphere syndrome, and dementia. Bilingual aspects of aphasia are discussed.

5362 Language Disorders in School-Aged Children (3-0)

Theoretical influences, diagnosis, and intervention for language impairments in school-aged populations including aspects of both spoken and written language. Topics include multicultural issues related to language disorders in this population.

5363 Phonatory Disorders of Voice (3-0)

5363 Primary Disorders of Voice (3-0)

Perceptual and instrumental identification of organic and functional phonatory voice disorders in children and adults.

5364 Motor Speech Disorders (3-0)

Study of the dysarthrias, apraxia of speech, and dysphagia. *Prerequisite:* SPLP 4312.

5365 Advanced Audiology (3-0)

Procedures utilized in diagnostic audiology to describe the type, degree, and, whenever possible, the site of auditory dysfunction.

5366 Communication Disorders and Literacy

Course focuses on the foundations and development of literacy in individuals with communication disorders. Literacy assessment and intervention strategies unique to those individuals are taught. *Prerequisites:* SPLP 3310 and SPLP 3314 each with a grade of "B" or better.

5369 Graduate Practicum in Speech-Language Pathology, University Clinic (3-0)

Supervised clinical practicum in providing services for individuals who are speech and language impaired at the University Clinic. University practicum during some semesters includes participation in off-campus sites. Enrollment is limited. May be repeated one time for elective credit. Liability insurance and TB clearance required. Course fee required. *Prerequisites:* 21 semester hours of upper-division undergraduate course work in communication disorders and proficient use of Standard American Oral English.

5370 Dysphagia (3-0)

This course provides the student with information regarding normal and disordered swallowing. Anatomy, physiology, and neurology of deglutition will be presented, followed by discussion of appropriate assessment procedures and treatment protocols. Dysphagia and its relation to motor speech disorders will be discussed.

5372 Problems and Projects in Speech-Language Pathology (3-0)

Special projects under faculty supervision. May be repeated for credit with a change in area of emphasis.

5373 Advanced Clinical Practicum in Audiology (3-0)

Supervised clinical practicum in providing audiological services. Enrollment is limited. Liability insurance and TB clearance required. *Prerequisite:* SPLP 5365. Course fee required.

5374 Problems and Projects in Audiology (3-0)

Special projects under faculty supervision. May be taken more than once with a change in area of emphasis.

5375 Articulation and Phonological Disorders (3-0)

This course will address theory and research on phonological development and disorders. Data sampling, analysis procedures, and interaction techniques will be emphasized.

5376 Multicultural/Multilingual Issues in Communication Disorders: an Hispanic Focus (3-0)

This course will promote students' awareness of cultural and language variables that will influence provision of services to clients and families of bilingual Spanish/English and monolingual Spanish speakers, particularly along the U.S./Mexico border. Students will review the emerging literature on normal language development of Spanish-speaking children who live in the U.S., on bilingualism, language loss, and cultural factors that can influence diagnosis, treatment, and counseling for fluency, voice, swallowing disorders, and hearing loss. *Prerequisite:* Department approval.

5377 Treatment Efficacy in Communication Disorders (3-0)

This course reviews the theoretical and procedural issues involved in the assessment of treatment efficacy. The value and use of single-subject treatment designs will be emphasized. Models of patient care and their impact on efficacious treatment will be examined.

5379 Graduate Practicum in Speech-Language Pathology, School Setting (0-0-3)

Supervised clinical practicum in providing services to the speech and language impaired in school settings. Offered Fall and Spring semesters only. Enrollment is limited. Liability insurance and TB clearance are required. *Prerequisites:* 50 clock hours of supervised practicum; SPLP 5369 with a grade of "B" or better, SPLP 5330, and SPLP 5362.

5380 Augmentative and Alternative Communication (3-0)

Integration of research results with clinical practice in augmentative and alternative communication (AAC) for individuals with complex communication needs. Implications for assessment, prescription of AAC systems, and intervention planning in AAC will be addressed. Development of light and high tech AAC systems will be completed.

5389 Graduate Practicum in Speech-Language Pathology, Hospital/Agency (0-0-3)

Supervised clinical practicum in providing services to the speech and language impaired in hospitals and/or agencies. Enrollment is limited. Liability insurance, TB clearance required, and CPR certification are required. *Prerequisites:* 50 clock hours of supervised practicum; SPLP 5369 with a grade of "B" or better, SPLP 5330, SPLP 5360, and SPLP 5364.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisite:* SPLP 5398.





Cooperative Programs

UTEP-UT Austin Cooperative Pharmacy Program

1100 N. Stanton, Suite 301
(915) 747-8519

DIRECTOR: José O. Rivera
REGIONAL DIRECTOR, EL PASO INTERNSHIP PROGRAM: William A. Klein III
PROFESSOR: José O. Rivera
CLINICAL ASSOCIATE PROFESSOR: Rivera
CLINICAL ASSISTANT PROFESSORS: Anaya, Loya, Salcido, Sias
COORDINATORS: Ho, Reilly, Rudder

The University of Texas at Austin College of Pharmacy, in cooperation with The University of Texas at El Paso, offers a six-year curriculum leading to the Doctor of Pharmacy (Pharm.D.) degree. This program offers a course of study in the pharmaceutical and clinical sciences designed to provide the community with pharmacists who are scientifically trained and clinically competent to deliver a full spectrum of pharmaceutical services in all areas of practice.

The Pharm.D. degree is designed to prepare men and women whose abilities and career aspirations suggest significant potential for innovative leadership in professional practice. In addition, this degree will prepare students to practice pharmacy in a contemporary setting, whether in a community or hospital pharmacy, in a long-term care facility, or in the pharmaceutical industry. This objective is met through a balanced program of study in pharmaceuticals, pharmaceutical and natural products chemistry, pharmacology, therapeutics, pharmacy administration, natural and social sciences, and the humanities, as well as a structured clinical and professional practice experience program. In addition, the curriculum is aimed at inculcating an understanding of the basic sciences sufficient to prepare the student for graduate study in the pharmaceutical sciences.

The Cooperative Pharmacy Program is designed to facilitate access to the College of Pharmacy at Austin by providing opportunities to fulfill pre-pharmacy requirements in El Paso.

The Pharmacy Scholars Program (PSP), which is an integral part of the Cooperative Pharmacy Program, provides highly qualified high school seniors conditional admission to The University of Texas College of Pharmacy and supplements the usual application process for admission to UT College of Pharmacy. A select number of students will be chosen to enroll into the program each year. These undergraduates will select the pre-pharmacy major and are encouraged to take advantage of the diversity and many opportunities at UTEP. Students selected for this program attend UTEP for approximately two years to complete their pre-pharmacy curriculum (e.g., organic chemistry, calculus, and physics) and, after obtaining required criteria, will move to Austin to attend the College of Pharmacy for approximately two years. The final approximate two years of the six-year curriculum will be completed in El Paso, and successful candidates will receive their degree from The University of Texas at Austin College of Pharmacy, in cooperation with the Cooperative Pharmacy Program at UTEP.

Further information about the program can be obtained by calling (915) 747-8519. The program office is located at 1100 N. Stanton, Suite 301, El Paso, TX 79902. Web Site: <http://chs.utep.edu/pharmacy/home.html>.







Cooperative Master of Public Health

1101 N. Stanton, Suite 110
(915) 747-8500
sph@utep.edu

The Master of Public Health Program (MPH) offered by The University of Texas Health Science Center at Houston School of Public Health (UTSPH) is housed at the Stanton Building close to the UTEP campus. This program was started in 1992 in response to the high demand for public health professionals along the U.S.-Mexico border. Courses are provided by the University of Texas-Houston School of Public Health faculty in residency at the Stanton Building, via interactive television courses taught by the Houston, San Antonio, Dallas, and UT Austin campuses as well as web based courses. In addition, some upper-division and graduate courses offered by UTEP academic departments may be taken concurrently and be considered in fulfillment of degree requirements. Students may also be enrolled in the MPH program and as post-baccalaureate students at UTEP concurrently.

Admission, registration, grading, and other policies are the same as at the Houston campus. Students are expected to gain a competency in the five basic disciplines of Public Health (Management, Policy and Community Health, Health Promotion and Behavioral Sciences, Biostatistics, Environmental and Occupational Health, and Epidemiology and Disease Control). Degree requirements include the completion of a minimum of 45 semester credit hours through which each student must demonstrate competency in the five basic sciences of public health, complete a practicum, and a thesis. No more than 6 of the 45 credit hours may be in thesis research and practicum. Additional courses may be required depending on the student's previous background, area of interest, and academic preparation. The thesis provides an opportunity for the student to synthesize the knowledge and skills gained through coursework by focusing on a specific public health problem. The UTSPH MPH Program is fully accredited by the Council on Education for Public Health. Internships and opportunities for students to gain some hands-on experience in public health issues affecting the border area are available. Additionally, UTSPH MPH students may be eligible for Teaching or Research Assistantships at the School of Public Health and UTEP. Most of the research that is being done at the El Paso campus focuses on assessing local health issues, evaluating the effectiveness of local health programs, or developing new approaches to solve local problems. Faculty is directly involved in assisting local public health agencies and brings these experiences into the classroom. Many of the projects are multidisciplinary in nature and include collaborators from international, national, and local agencies and universities such as the Centers for Disease Control and Prevention (CDC), Pan American Health Organization (PAHO), Texas A & M Agricultural Extension Center, the Universidad Autonoma de Ciudad Juarez, Paso Del Norte Health Foundation, El Paso Diabetes Association, Centro San Vicente, El Paso Community College, Canutillo Independent School District and the Texas Tech University Medical School.

List of Courses

- Introduction to Epidemiology (3 semester credit hours)
- Introduction to Epidemiology Lab (1 semester credit hour)
- Field Epidemiology (4 semester credit hours)
- Special Topic: Chronic Disease and Injury Epidemiology (3 semester credit hours)
- Advanced Epidemiological Methods I (4 semester credit hours)
- Epidemiology Proposal Development (3 semester credit hours)
- Introduction to Biostatistics (4 semester credit hours)
- Statistical Applications of Public Health Research (4 semester credit hours)
- Statistical Methods in Epidemiology (4 semester credit hours)
- Overview of Environmental Health (4 semester credit hours)
- Toxicology I: Principals of Toxicology (4 semester credit hours)
- Fundamentals of Industrial Hygiene (4 semester credit hours)
- Topics in Infectious Diseases (3 semester credit hours)
- Science and Law (3 semester credit hours)
- Special Topic: Environmental Health Risk Assessment (3 semester credit hours)
- Special Topic: Site Visits in Environmental Health (3 semester credit hours)
- Introduction to Management and Policy Sciences (3 semester credit hours)
- Administration and Public Health (4 semester credit hours)
- Health and Development (3 semester credit hours)
- Principles and Practices of Public Health (3 semester credit hours)
- Health and Safety Program Management (4 semester credit hours)
- Community Based Health Assessment (4 semester credit hours)
- Special Topic: Critical Cinema (1 semester credit hour)
- Social and Behavioral Aspects of Community Health (3 semester credit hours)
- Health Promotion, Theory and Methods I (3 semester credit hours)
- Health Promotion, Theory and Methods II (3 semester credit hours)
- Addictive Behavior (3 semester credit hours)
- Special Topics: Chicano Health: Exploring It's Social Dimensions (3 semester credit hours)
- Current Topics Seminar in Obesity, Nutrition and Physical Activity (1 semester credit hour)
- Public Health and Nutrition (3 semester credit hours)
- Precede Health Promotion and Planning (3 semester credit hours)
- Thesis Workshop (1 semester credit hour)

Faculty Members

Hector G. Balcazar, Ph.D., Behavioral Scientist

Theresa Byrd, Ph.D., Behavioral Scientist

Victor Cardenas, MD., Ph.D., Epidemiologist

Shawn Gibbs, Ph.D., Environmental Scientist

Nuria Homedes, MD., Dr. P.H., Health Policy and Management

Kristina Mena, Ph.D., MSPH, Environmental Scientist

Melchor Ortiz, Ph.D., Biostatistician

Patrick Tarwater, Ph.D., Biostatistician

For more information concerning the Master's of Public Health degree, students should call (915) 747-8500, visit the web page <http://sph.uth.tmc.edu/elpaso/> or write The University of Texas Health Science Center, 1100 N. Stanton, Suite 110, El Paso, TX, 79902.





COLLEGE OF LIBERAL ARTS

- [College of Liberal Arts](#)
- [Art](#)
- [Communication](#)
- [Creative Writing](#)
- [English](#)
- [History](#)
- [Languages and Linguistics](#)
- [Interdisciplinary Studies](#)
- [Music](#)
- [Philosophy](#)
- [Political Science](#)
- [Psychology](#)
- [Sociology and Anthropology](#)
- [Theatre, Dance, and Film](#)
- [Women's Studies](#)





College of Liberal Arts

In 1942, the History Department, a component of today's College of Liberal Arts, awarded UTEP's first master's degree. Since then, most of the departments in the College have developed graduate programs. MA programs are available in Art with options in Art Education and Studio Art, Communication, English, History, Linguistics, Political Science, Psychology, Sociology, Spanish, Teaching, and Theatre Arts. The Department of Music offers the Master of Music (MM) degree with options in Performance and Music Education. The Master of Fine Arts (MFA) is the degree offered by the Department of Creative Writing. In September 1993, the first students began course work in the Ph.D. program in Psychology—the first doctoral degree program in Liberal Arts. In September 1999, the first students entered the Ph.D. in History, and in August 2004 a Ph.D. in English with an emphasis in Rhetoric and Composition began.

Students wishing to expand their knowledge in areas outside their previous training or present profession may pursue the Master of Arts in Interdisciplinary Studies. Students in this program take MAIS courses that emphasize cross-disciplinary approaches, with encouragement to pursue an individualized course of study designed to further their particular interdisciplinary interests.

Also offered is a joint UTEP-UT Austin doctorate with a concentration in Border Studies. Students in this program can complete much of their course work in residence at UTEP with the doctoral degree awarded by UT Austin. For more information on this program, students should consult the Graduate School section, under Cooperative Programs.







Art

350 Fox Fine Arts
(915) 747-5181
Fax (915) 747-6749
artdept@utep.edu

CHAIRPERSON: Gregory M. Elliott

GRADUATE FACULTY: Bauer, Bonansinga, Burke, Castro, Elliott, Fensch, Gianguilio, Goldman, Parish, Quinnan, Thiewes, Wong

MA in Studio Art and Art Education

The Art Department offers two Master's degrees: the MA in Studio Art and the MA in Art Education. The MA in Studio Art offers concentrations and minors in Ceramics, Drawing, Graphic Design, Metals, Painting, Printmaking, and Sculpture.

The MA in Art Education offers a major in Art Education with a minor in Studio Art with a final exhibition or a minor in Education with a thesis or non-thesis option. The MA in Art Education with a Studio Art minor is for students who wish to continue their professional development in art education and seek artistic growth. The thesis degree plan is for students who wish to pursue research in art education and may at a future date continue studies beyond the master's degree. The non-thesis degree plan is for students who wish to pursue research in art education for continued professional development purposes, but may not wish to continue studies beyond the master's degree in the future.

Program Admission Requirements

Studio Art

Requirements for Admission to Department

1. A bachelor's degree from an accredited U.S. institution or proof of equivalent education in a foreign institution
2. Satisfactory preparation in Art, Art History, or Art Education
3. Applicants must apply both to the Graduate School and to the Art Department
4. Satisfactory portfolio, applicant's written statement, and letters of recommendation
5. TOEFL scores of 213/550 or higher for international applicants

Application Procedures

The applicant must submit to the Art Departmental Advisor the following:

1. A completed Department of Art MA Application form
2. A letter of application
3. A portfolio of 10-15 slides of the applicant's recent artwork, presented in a clear plastic slide sheet, with each slide labeled and identified on a separate slide list. Digital images may be submitted in TIF or PIC format as an alternative to the slides.
4. At least two confidential letters of recommendation
5. A written statement by the applicant about his/her art

Art Education

Requirements for Admission to the Department

To qualify for the Art Education program, the applicant must have completed:

1. A bachelor's degree in Art, Art History, Art Education, or the equivalent from an accredited U.S. institution or proof of equivalent education in a foreign institution
2. Official scores on the Graduate Record Examination (GRE) or TOEFL (for international students)
3. 51 semester hours in Studio Art, Art History, and Art Education

Application Procedures

The applicant must submit to the Art Department Advisor the following:

1. A completed Department of Art MA application form
2. A letter of application stating how this degree program fits into the applicant's long term goals
3. Transcripts according to the requirements of the Graduate School.
4. Two letters of recommendation
5. A portfolio of 10-15 slides of the applicant's most recent work, presented in a clear plastic slide sheet with each slide labeled and identified on a separate slide list (for minor in Studio Art only). Digital images may be submitted in TIF or PIC format as an alternative to the slides.
6. A written philosophic and theoretical statement regarding the applicant's views of art and art education

Degree Plans

STUDIO ART

The Studio Art major requires 33 semester hours: 15 in a studio concentration, nine hours of a studio minor, three hours of Graduate Seminar, three hours in a related discipline or in Art History, and three hours of a Graduate Exhibition with exhibition report.

Art Education

Minor in Studio Art: The MA in Art Education with a minor in Studio Art requires 33 graduate-level credit hours (with at least 27 semester hours at the graduate level) that include 12 hours in Art Education, 12 hours in studio (to be determined by the student and the Graduate Committee chairman), 3 hours of Graduate Seminar, 3 hours in Art History, and 3 hours of Graduate Exhibition with exhibition report. All upper-division undergraduate-level work proposed for inclusion in this graduate degree must be eligible for graduate credit and recommended for approval by the graduate advisor of the department.

Minor in Education with Thesis: This degree plan requires 36 graduate-level semester hours (with at least 27 semester hours at the graduate level), which include 12 hours of Art Education, three hours of Art History, three hours of Graduate Seminar, 12 hours of Education, and six hours of thesis (with oral defense). A thesis, satisfactory to the Graduate Committee and the Graduate School, must be completed before the degree will be awarded. All upper-division graduate work proposed for inclusion in this graduate degree must be eligible for graduate credit and recommended for approval by the graduate advisor of the department.

Minor in Education without Thesis: This degree plan requires 36 semester hours (with at least 27 semester hours at the graduate level) that include 18 hours of Art Education, three hours of Art History, three hours of Graduate Seminar, and 12 hours of Education. Graduate students will be required to successfully complete both a written and oral comprehensive examination in Art Education and Education before the degree will be awarded. Candidates will be required to write several scholarly papers, one of which must be presented to the Graduate Advisor for inclusion in the student's file. All upper-division undergraduate work proposed for inclusion in this graduate degree must be eligible for graduate credit and recommended for approval by the graduate advisor of the department.

Application Deadlines

The deadline for application to the Art Department for either of the MA degree programs is April 15 for the following fall semester, and October 15 for the following spring semester.

For Undergraduate and Graduate Students

Art History (ARTH)

4309 Research Problems in Art History

4319 Special Problems in Art History

Ceramics (CERM)

4304 Ceramics VI

4314 Ceramics VII

4324 Special Problems in Ceramics

Drawing (DRAW)

4310 Advanced Drawing I

4320 Advanced Drawing II

4330 Special Problems in Life Drawing

Metals (MTLS)

4303 Metals VI

4313 Metals VII

4323 Special Problems in Metals

Painting (PNTG)

4301 Painting VI

4331 Painting VII

4341 Special Problems in Painting

Printmaking (PRNT)

4305 Printmaking VI

4325 Printmaking VII

4335 Special Problems in Printmaking

Sculpture (SCUL)

4302 Sculpture VI

4332 Sculpture VII

4342 Special Problems in Sculpture

For Graduate Students Only

General Art Courses (ART)

5393 Graduate Exhibition (0-0-3)

Organization and presentation of a one-person exhibition. This effort includes the planning, promotion, design, installation, and verbal defense of the exhibition to the selected graduate committee. *Prerequisite:* Department approval. Supplemental Tuition and Art course fee required.

5395 Graduate Seminar (3-0)

Conference and discussions of various topics in Art by faculty, graduate students, and outside speakers. Required of all graduate Art majors. May be repeated one time.

Art Education (ARTE)

5301 Art Education Seminar (3-0)

Literature and current research in art education, with exchange of ideas and discussion of problems in the field.

5303 Art Curriculum Development (3-0)

Identification of principles, problems, and issues affecting visual arts curriculum in the schools. Examination of rationale and philosophies of various models of art education programs in the U.S.

5321 Art Criticism in the Schools (3-0)

Examination of the history, philosophies, theories, and practices of visual arts criticism in American schools. Identification of problems and issues, which center on the application of art criticism approaches affecting today's schools.

5397 Directed Research in Art Education (0-0-3)

Independent research in art education with regular consultation between student and assigned professor. Course may be repeated when problem varies.

5398 Thesis (0-0-3)

Initial work on the thesis. Art course fee required.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisite:* ARTE 5398. Art course fee required.

Graphic Design (ARTG)

5350 Directed Studio Problems (0-6)

Independent creative research with regular consultation between student and assigned faculty member. *Prerequisite:* Department approval. Fees required.

Art History (ARTH)

5309 The Art and Civilization of Ancient Mexico: The Maya (3-0)

This course surveys the art and civilization of the Maya, the Aztecs, and their predecessors from 1800 BC to the present. In addition to large-scale art and architecture, the invention of writing, funerary ceramics, and the use of art as both religious and political art will be examined.

5310 The Border and Visual Culture (3-0)

The course explores the history of art and its role in the civilizations of the El Paso/Northern Chihuahua region, from Hueco Tanks to the rise of Modernism and the mural renaissance. Using the rich artistic legacy of this area, the class examines the way art functions across borders and how borders have been constructed, debated, and lived through in the art of the past.

Whole Arts (ARTS)

5320 Whole Arts (2-2)

An interarts experience that addresses Texas State requirements in the arts for classroom teachers EC-4. The course explores major themes from the visual and performing arts tools, methods and resources for learning. The themes are presented in lectures, activities and interviews. Arts-for learning research projects and papers are required. *Prerequisites:* Core curriculum and Performing Arts requirement.

Ceramics (CERM)

5350 Directed Studio Problems (0-6)

Independent creative research with regular consultation between student and assigned faculty member. Fees required.

Drawing (DRAW)

5302 Graduate Problems in Drawing (0-6)

This course stresses individual direction and achievement in drawing. May be repeated for credit. Art course fee required.

5350 Directed Studio Problems (0-6)

Independent creative research with regular consultation between student and assigned faculty member. Art course fee required.

Metals (MTLS)

5350 Directed Studio Problems (0-6)

Independent creative research with regular consultation between student and assigned faculty member. Fees required.

Painting (PNTG)

5350 Directed Studio Problems (0-6)

Independent creative research with regular consultation between student and assigned faculty member. *Prerequisite:* Department approval. Fees required.

Printmaking (PRNT)

5350 Directed Studio Problems (0-6)

Independent creative research with regular consultation between student and assigned faculty member. Fees required.

Sculpture (SCUL)

5302 Graduate Problems in Sculpture (0-6)

This course stresses individual direction and achievement in Sculpture. May be repeated for credit. Fees required.

5350 Directed Studio Problems (0-6)

Independent creative research with regular consultation between student and assigned faculty member. Fees required.



Communication

202 Cotton Memorial
(915) 747-5129
communications@utep.edu

CHAIRPERSON: Patricia D. Witherspoon
PROFESSOR EMERITUS: Ray Small
GRADUATE FACULTY: Barrera, Byrd, Erbert, Pineda, Perez, Riccillo, Ruggiero, Sowards, Trejo, Witherspoon, Yang

The department offers a Master of Arts degree in Communication.

Requirements for Admission

1. Bachelors degree in communication from an accredited institution or proof of equivalent education in a foreign institution.
2. Twelve semester hours of advanced course work in communication or related discipline as determined by the graduate advisor, along with names, e-mail addresses and phone numbers of two academic references who can comment about the student's ability to do graduate work.
3. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework. Applicants are generally expected to have achieved a GPA of 3.0 or higher in upper level course work.
4. A letter of application to the graduate advisor addressing the rationale for advanced study in communication, along with letters of recommendation sent to the graduate advisor from two academic references who can comment about the student's ability to do graduate course work.
5. TOEFL score of at least 550 (paper) or 213 (Computer based) for international students whose first language is not English or who have not completed a university degree in the U.S.

Department of Academic Standards

In addition to the graduate school requirements of maintaining a 3.0 GPA in all courses counting towards a degree, the department requires students to earn a grade of "B" or better in all core research methods courses (5100, 5310, 5311). Students receiving a "C" or lower will be required to retake the course a second time. If, after repeating a core research methods course a second time and a grade of "B" is not achieved, the student will be dismissed from the program.

MA Degree Requirements

Course Work

Thesis Option: A minimum of 30 semester hours in communication are required. 24 hours of course work numbered 5100-5399 and 6 hours of theses (5398, 5399) credit, and the submission of a graduate school approved electronic copy of a thesis approved by the graduate faculty.

Non-thesis Option: A minimum of 36 semester hours in communication are required. 36 hours of graduate course work numbered 5100-5390. In addition, a graduate school approved electronic copy of a project report approved by the graduate faculty is required.

Research Core Courses

The core research courses are required for both the thesis and non-thesis options: 5100, 5310 and 5311.

Oral Examination

An oral examination by the graduate faculty will be required for both the thesis and non-thesis options.

Undergraduate Courses for Graduate Credit

With approval of the graduate advisor, up to 6 hours of credit may be selected from other departments who have designated undergraduate course work for graduate credit to enrich the graduate offering.

For Graduate Students Only

Communication (COMM)

5100 Introduction to Graduate Studies (1-0)

An introduction to theories, methods and styles of research in the communication discipline. Required of all graduate students pursuing advanced degree.

5310 Quantitative Research Methods (3-0)

Introduction to methods used in conceptualizing, planning and designing measurement of communication research problems.

5311 Qualitative Research Methods (3-0)

Introduction to methods used in conceptualizing, planning, and designing critical or interpretive methods for communication research problems.

5332 Seminar in Contemporary Rhetoric (3-0)

Study of the contributions to understanding of persuasion and communication by modern humanistic theorists, such as Kenneth Burke, I. A. Richards, and Marshall McLuhan. Application of such theory to a variety of contemporary communication events. May be taken more than once with a change in area of emphasis.

5333 Seminar in Interpersonal Communication (3-0)

Explores and reviews theory and research related to the process of communication involved with message exchange between people in relationship formation and maintenance. May be repeated for credit when topic varies.

5334 Seminar in Media and Society (3-0)

Explores and reviews theory and research regarding media issues and effects in various societal context. Various print and electronic media are explored. May be repeated for credit when topic varies.

5335 Seminar in Intercultural/International Communication (3-0)

Explores and reviews theory and research regarding intercultural and international issues when individual members, groups or institutions interact, individually or collectively, from different cultures or national perspectives. May be repeated for credit when topic varies.

5336 Seminar in New Communication Technologies (3-0)

Explores and reviews theory and research regarding the introduction and use of new communication technologies in various areas of society. May be repeated for credit when topic varies.

5337 Seminar in Organizational Communication (3-0)

Explores and reviews theory and research regarding communication processes used in organizing in various contexts of complex human organizations. May be repeated for credit when topic varies.

5338 Seminar in Communication Education (3-0)

Explores and reviews theory and research regarding the development and implementation of pedagogical issues in communication instruction. May be repeated for credit when topic varies.

5343 Seminar in Communication Theory (3-0)

Study of recent non-traditional contributions to theories of human communication. Investigates the application of models, the implications of recent developments in social psychology, and the results of experimental research. May be repeated for credit when topic varies.

5350 Directed Study (3-0)

Investigation of a significant area in rhetoric, communication, public address, or media-based communication practices by individual students or small groups. May include individual research projects or field study. May be taken more than once with a change in area of emphasis.

5362 Organizational Communication (3-0)

Philosophy, methods, and designs for studying the communication systems and practices in a complex organization.

5398 Thesis (0-0-3)

Initial work on thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisite:* COMM5398.



Creative Writing

415 Liberal Arts
(915) 747-5713
www.utep.edu/cw

INTERIMCHAIR: Benjamin Saenz

The Department of Creative Writing is designed to provide the highest professional preparation and training to individuals who wish to pursue careers in writing or the teaching of writing. Students may choose to take creative writing and literature courses in English, Spanish, or a combination of the two languages. Each year a variety of fully bilingual courses is offered. The MFA curriculum culminates in the writing of a book length manuscript of original creative work (thesis).

Minimum Admission Requirements

1. A Bachelor's degree or its equivalent
2. Transcripts according to the requirements of the Graduate School
3. Three letters of recommendation
4. A writing sample in the genre of emphasis
 - 8-10 poems
 - 20 pages of prose, playwriting, essay or screenplay

Degree Plan Options for MFA in Creative Writing:

Required Form and Theory Courses (9 hours)

- | | | |
|-----|------|---------------------------------|
| CRW | 5321 | Narrative Theory and Poetics |
| CRW | 5364 | Forms and Techniques of Fiction |
| CRW | 5365 | Forms and Techniques of Poetry |

These three courses should be taken by all students in their first year of residence.

Workshop and/or Variable Topics courses (15 hours)

- | | | |
|-----|------|-------------------------------|
| CRW | 5366 | Advanced Fiction Writing |
| CRW | 5367 | Advanced Poetry Writing |
| CRW | 5369 | Advanced Playwriting |
| CRW | 5372 | Advanced Screenwriting |
| CRW | 5373 | Advanced Creative Non-fiction |

(Only three permitted in a single genre)

All of the above may be taken up to three times for credit.

Literature Courses (12 hours)

These courses may be taken from ENGL or SPAN.

Optional: CRW 5368 Variable Topics in Creative Writing may be taken twice for credit when topic varies. This course may count once each either as a literature course or as a workshop course.

Electives (6 hours)

These courses may be taken from any department with an advisor's approval.

Thesis (6 hours)

- | | | |
|-----|------|--------|
| CRW | 5398 | Thesis |
| CRW | 5399 | Thesis |

In addition, ENGL 5345 English Teaching Methods must be taken by students whose teaching assistantship falls within the English Department.

The thesis will consist of a book length manuscript of original fiction or poetry, play, group of essays, or screenplay, accompanied by a preface. Each candidate is required during the first semester of thesis hours to submit a thesis proposal and a sample of the thesis-in-progress to the thesis committee. The thesis will be prepared under the direction of a three-member supervising committee and will be defended orally.

Creative Writing (CRW)

5321 Narrative Theory and Poetics (3-0)

Intensive readings in literary theory and criticism as they relate to aesthetics, form, and the creative process. The course will cover a spectrum of critical reflection by philosophers, theorists, fiction writers and poets regarding poeisis and the making of fiction. Students will undertake a research paper or project. *Prerequisite:* Department approval.

5364 Forms and Techniques of Fiction (3-0)

A course in directed reading and writing that leads the student to an understanding of the creative process through analysis and imitation of important works of fiction. *Prerequisite:* Department approval.

5365 Forms and Techniques of Poetry (3-0)

A course in directed reading and writing that leads the student to an understanding of the creative process through analysis and imitation of important works of poetry. *Prerequisite:* Department approval.

5366 Advanced Fiction Writing (3-0)

Intensive study and practice in the various forms and approaches of fiction writing, including workshop discussion and individual student manuscripts. *Prerequisite:* Department approval.

5367 Advanced Poetry Writing (3-0)

Intensive study and practice in the various forms and approaches within the writing of poetry, including workshop discussion of individual student poems. *Prerequisite:* Department approval.

5368 Variable Topics in Creative Writing (3-0)

Genres and forms not normally covered in the MFA curriculum, e.g., the short novel, libretti, the dramatic monologue. Writing consists of both criticism particular to the course focus, and writing representative of the form or genre itself. May be taken up to three times.

5369 Advanced Playwriting (3-0)

Intensive study and practice in the various forms and approaches of playwriting, including workshop discussion of individual student playwriting.

5372 Advanced Screenwriting (3-0)

Intensive study and practice in various forms and approaches of screenwriting, including workshop discussion of individual student screenwriting.

5373 Advanced Creative Non-Fiction (3-0)

Intensive study and practice in the various forms and approaches of creative non-fiction including workshop discussion of individual student creative non-fiction.

5381 Literary Translation (3-0)

Theoretical consideration, reading and practice in various forms and approaches to literary translation, including individual projects. *Prerequisite:* Department approval.

5382 Studies in Form (3-0)

Advanced literary and critical focus on a single author, movement, or period within a single major form, e.g. novel, drama, poetry, essay, screenplay. *Prerequisite:* Department approval.

5383 Teaching Creative Writing (3-0)

Pedagogical approaches to teaching creative writing within university and alternative settings. Readings will focus on methods, skills, and principles required for using creative writing in the classroom, including case studies and theoretical considerations. *Prerequisite:* Department approval.

5384 The Literary Marketplace (3-0)

Consideration of practical and career aspects of writing, editing, and publishing. Presentation of developments and trends of literature in its cultural genesis and social dissemination. May focus either on specific aspects (e.g., agents, career management) or larger trends (e.g., the blockbuster syndrome, the growth of small press publishing) of literary marketplace. *Prerequisite:* Department approval.

5385 Publishing an Online Literary Magazine (3-0)

Examination of existing online magazines, readings pertinent to the history of literary journals. Practicum in conceiving, designing, publishing an issue of an online literary magazine. *Prerequisite:* Department approval.

5390 Independent Study (0-0-3)

Individual projects in reading and writing. Cannot duplicate the content of any course regularly offered. *Prerequisite:* Department approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.



English

113 Hudspeth Hall
(915) 747-5731
english@utep.edu

CHAIRPERSON: Evelyn Posey

GRADUATE FACULTY: Abarca, Armitage, Baca, Brunk-Chavez, Cappell, Clark, Dick, Foster, Fredericksen, Gladstein, Gunn, Jayasuriya, Johnson, Lawson, Mangelsdorf, Mansfield-Kelley, Marchino, Meyers, Minnick, Perrillo, Polette, Posey, Rohreiter, Ruitter, Salinas, Scenters-Zapico, Schmid, Smith, Stafford, Yothers

MA, MAT and PhD Degrees

The English Department offers a Master of Arts in English degree with two concentrations available: 1) English and American Literature and 2) Rhetoric and Writing Studies; and a Master of Arts in Teaching in English. The department also offers a Doctor of Philosophy degree in Rhetoric and Composition.

MA Degree - English and American Literature Concentration

The primary objective of the Literature concentration is to develop skill in reading and interpreting literature. The course work is designed to provide both a comprehensive knowledge of literature in its historical and intellectual contexts and the opportunity to explore competing theories of critical interpretation. The Literature concentration offers the opportunity for students to prepare for teaching in secondary schools and at junior colleges. It also offers the opportunity for students to prepare for admission to PhD programs in British and American Literature.

Requirements for Admission

1. A Bachelor's degree from an accredited U.S. institution or proof of equivalent education in a foreign institution
2. Submission of official Graduate Record Examination (GRE) scores
3. 18 hours of advanced level English courses
4. A writing sample
5. A Statement of Purpose
6. Three letters of recommendation
7. Optional: a resume or other supporting materials to give a full picture of the applicant's potential.

Requirements for Degree

1. 36 semester hours including 33 semester hours of course work and ENGL 5391; **or**
2. 36 semester hours, to include 33 semester hours of course work, ENGL 5392, and an oral examination; **or**
3. 36 semester hours to include 30 hours of course work, ENGL 5398-5399 and an oral examination.
 - a. **Core Curriculum** (15 hours): Take one course from each of areas 1-5: (1) Research Methods, ENGL 5300; (2) Theory, ENGL 5320 or a course designated in the schedule as "meets theory requirement"; (3) Studies in English Literature, ENGL 5301, ENGL 5302, ENGL 5303, or ENGL 5304; (4) Studies in American Literature, ENGL 5305, ENGL 5306, ENGL 5307, or ENGL 5308; and (5) Studies in Multi-Cultural Literature, ENGL 5321, ENGL 5322, ENGL 5323, or ENGL 5324.
 - b. **Area of Specialization** (6-9 hours): Take 2 to 3 additional courses in one area, choosing from areas 3-5: (3) Studies in English Literature, (4) Studies in American Literature, and (5) Studies in Multi-Cultural Literature.
 - c. **Electives** (6-9 hours): Take 2 to 3 courses from the five areas [(1) Research Methods, (2) Theory, (3) Studies in English Literature, (4) Studies in American Literature, and (5) Studies in Multi-Cultural Literature], or other graduate courses from within or outside the department, with approval.
 - d. **Writing/Research Options** Students must choose 1 of the 3 alternatives listed below (A, B, or C):
 - **Alternative A** – 36 hours (33 hours course work, 3 hours written examination/oral examination): ENGL 5391 Written and Oral Examinations
 - **Alternative B** – 36 hours (33 hours course work, 3 hours extended seminar paper, and paper defense): ENGL 5392 Masters of Arts Research Paper
 - **Alternative C** – 36 hours (30 hours course work, 6 hours thesis, and thesis defense): ENGL 5398 Thesis I and ENGL 5399 Thesis II.

***Special Topics courses**: may be used as elective credit; when applicable, may be counted towards an area, with advisor's approval: ENGL 5325 Genre: Theory and Practice; ENGL 5350 Seminar: Special Topics; ENGL 5390 Directed Studies

***Other Elective Credits**: other graduate courses, from within or outside the English Department, may count for electives, with advisor's approval.

*ENGL 5391: Written examination over designated materials will be 3 hours in length, and the oral examination will be 1 hour in length.

MA Degree - Rhetoric and Writing Studies Concentration

The Rhetoric and Writing Studies (ENWR) concentration includes courses in rhetoric and writing studies, as well as an introduction to graduate studies in the field. There is, sufficient flexibility through electives to allow students to fashion degree plans suitable to their individual interests. The ENWR concentration offers students the opportunity to prepare for careers as professional/technical writers and community college teachers, as well as for academic study at the doctoral level.

Requirements for Admission

1. A Bachelor's degree from an accredited U.S. institution or proof of equivalent education at a foreign institution
2. Submission of official Graduate Record Examination (GRE) scores
3. Evidence of adequate preparation for graduate course work in Rhetoric and Writing Studies

4. A writing sample
5. A Statement of Purpose
6. Three letters of recommendation
7. Optional: a resume or other supporting materials to give a full picture of the applicant's potential

Requirements for the Degree

Thirty-six (36) semester hours consisting of

1. 33 semester hours of course work, plus a 3-hour practicum (ENGL 5397), and an oral examination; **or**
2. 30 hours of course work, plus a 6-hour practicum (ENGL 5395 and ENGL 5396), and an oral examination; **or**
3. 30 hours of course work, plus a 6-hour thesis (ENGL 5398 and ENGL 5399), and an oral examination.
 - a. **Core Curriculum** (24 hours)
 - Research Methods (3 hours): ENGL 5309
 - Rhetoric (6 hours): ENGL 5310 and ENGL 5311
 - Internship (3 hours): ENGL 5317 or 5318
 - Writing Studies (12 hours): from ENGL 5312*, ENGL 5313, ENGL 5314*, ENGL 5315*, and ENGL 5328*

* Topics vary; may be retaken for credit.
 - b. **Electives** (6-9): Electives may include any graduate English courses not being counted as part of the core curriculum (with the exception of ENGL 5316, ENGL 5130, ENGL 5230, or ENGL 5330); other approved electives may include COMM5332, COMM5343, or COMM5362; LING 5301, LING 5310, LING 5319, LING 5341, LING 5370, or LING 5373; POLS 5364; or graduate courses in these or other departments as approved by the Director of Rhetoric, and Writing Studies, and the Graduate Advisor.
 - c. **Practicum** (3-6 hours) **or Thesis** (6 hours)
 - (1) The practicum option requires the completion of a supervised experience in resolving a professional or academic communication problem through the preparation of an appropriate written document. The student submits a practicum proposal and the names of a practicum director, English Department reader, and an outside reader to the Graduate Advisor for approval, and then follows the Graduate School guidelines for preparing and submitting the practicum paper.
 - (2) The thesis option requires the completion of a substantial work of writing rhetoric and writing studies scholarship. The student submits a thesis proposal and the names of a thesis director, English Department reader, and an outside reader to the Graduate Advisor for approval, and then follows the Graduate School guidelines for preparing and submitting a thesis.
 - d. **Oral Examination:** A defense of the thesis or practicum document before the student's committee is required. In all cases, a majority vote of the committee will determine acceptance or rejection.

Online Graduate Certificate in Technical and Professional Writing

The Graduate Certificate in Technical and Professional Writing is designed for early and mid-career professionals (or those switching careers) who already hold a baccalaureate or graduate degree and are interested in further education, as well as current UTEP graduate students of any discipline who seek to strengthen their skills. This entire program will be online, to better meet the needs of working professionals and graduate students who need flexible schedules.

Required Courses

This certificate will consist of 12 semester hours of study and include the following 4 courses:

1. ENGL 5312 Technical Writing ProSeminar
2. ENGL 5314 Computers and Writing Seminar
3. ENGL 5315 Professional Writing Seminar
4. ENGL 5313 Grant Writing or
ENGL 5328 Special Topics in Rhetoric and Composition (Topics vary)

As a final measure for certificate completion, students will submit an electronic portfolio of their work, which will be assessed on a pass/fail basis by the program director and selected faculty.

Admissions Requirements

Applicants to the Graduate Certificate in technical and professional Writing must:

- Already hold a baccalaureate or graduate degree with a minimum 3.0 GPA
- Complete the graduate school application and supply an official transcript
- Submit a two-page statement of purpose and a 15 page writing sample

Students may be classified as non-degree seeking students or have the certificate program incorporated into the degree requirements for admission. Students who complete the Graduate Certificate in technical and Professional Writing and decide to pursue a graduate degree at a later date may apply to the rhetoric and Writing Studies graduate program and request that the units become part of their program at admission.

Master of Arts in Teaching - English

The Master of Arts in Teaching degree with a major in English is designed to deepen teachers' knowledge of rhetoric, writing, literature, and language in ways that are professionally relevant to them as teachers in secondary schools, community colleges, and universities. Course work includes specialized English teaching methods, rhetoric and writing, literature, reading, and teacher education, with a thesis in an area related to the teaching of English.

Requirements for Admission

1. A Bachelor's degree from an accredited U.S. institution or proof of equivalent education at a foreign institution
2. Submission of official Graduate Record Examination (GRE) scores
3. A Bachelor's degree in English OR 12 hours of advanced-level English courses plus English 4355 or the equivalent
4. A writing sample

5. A Statement of Purpose
6. Three letters of recommendation
7. Optional: a resume or other supporting materials to give a full picture of the applicant's potential

Requirements for the Degree

Thirty-six (36) semester hours consisting of

1. Thirty semester hours of course work, a six-hour thesis (ENGL 5398-5399), and an oral examination
2. 15 hours of field experience in ENGL 5344
 - a. **Core Curriculum** (12 hours)
 - Research Methods (3 hours): ENGL 5300
 - English Teaching Methods (6 hours): ENGL 5344 and 5345
 - Rhetoric/Writing (3 hours): ENGL 5310
 - b. **Electives** (18 hours)
 - Rhetoric/Writing (3 hours): ENGL 5311 or 5315
 - Literature (9 hours): a 6-hour pair from ENGL 5301-51; 5302-52; 5303-53; 5304-54; 5305-55; or 5306-56 AND 3 hours from ENGL 5325 or 5350
 - Teacher Education (6 hours): RED 5341 or 5346 AND one of the following:
 - TED 5300; 5301; 5302; or EDT 5370
 - c. **Thesis** (6 hours)

ENGL 5398-5399: A thesis is required with emphasis on one or all of the following: a reflective practitioner model of teacher/researcher; interaction of theory and practice in the teaching of English; theoretical issue in the teaching of English; synthesis, history and overview of approaches of teaching some aspect of the English curriculum.
 - d. **Oral Examination**

A defense of the thesis before the student's committee is required. In all classes, a majority vote of the committee will determine acceptance or rejection.

PhD in Rhetoric and Composition

Overview of Program

The PhD program in Rhetoric and Composition prepares graduates for careers as writing specialists in higher education, business, industry, and government. In higher education they conduct research into theories of writing development, use, and pedagogy. In business, industry, and government they apply higher-level research, thinking, and writing skills to enhance communication. The focus of the program is on intercultural rhetoric, computer-mediated writing, and community application.

Students can enter the program with a Bachelor's degree in English, a Master's degree in Rhetoric and Composition, or a related field. They will complete a minimum of 45-51 credit hours beyond the MA, including core courses that will cover rhetorical history, writing pedagogy, writing in cultural contexts, and computer-mediated writing; concentration courses in topics such as workplace writing, the teaching of writing, or literary studies; and an internship course in a community setting. A dissertation involving extended research is required. Students have opportunities to extend their knowledge of Rhetoric and Composition by taking courses in other disciplines such as Communications, Languages and Linguistics, and Teacher Education.

Requirements for Admission

Students will be considered for admission after completion of a BA in English or an MA in English with a focus in Rhetoric and Composition; Rhetoric and Writing Studies; or Professional Writing and Rhetoric. Students with an MA in Literature, an MAT in English, an MFA in Creative Writing, or an MA in a related field (such as Communication or Linguistics) also will be considered.

Students entering the program with a BA will enroll in the Master's program in Rhetoric and Writing Studies offered by the English Department. They will be required to complete the 6-hour thesis requirement for the MA degree. Upon finishing this degree, they will complete the additional work required in the PhD program.

To be considered for admission, all applicants to the PhD program must meet the minimum requirements for admission described in the University of Texas at El Paso Graduate Studies Catalog. Students (including UTEP graduates) will be required to submit:

1. Official transcripts of all prior academic work,
2. Scores from the Graduate Record Examination (GRE)
3. Letters of recommendation from at least three faculty members and/or members of the professional community with whom they have worked,
4. A description of their educational objectives,
5. A description of their theoretical and pedagogical approaches to teaching writing, and
6. Two writing samples: a research paper, and another of their choice, such as a digital project.

Applicants will be evaluated according to their previous academic record, scores on the analytical and verbal sections of the Graduate Record Examination, the strength of their letters of recommendation, and the quality and appropriateness of their writing samples. Another key criterion will be the compatibility between students' interests and expectations and the objectives of the PhD program.

Requirements for the Degree

A minimum of 45-51 credit hours beyond the MA

1. 15 hours of core courses,
2. 9 hours in a concentration,
3. 3 hours of graduate seminars,
4. 3 hours of an internship course,
5. 3 hours of an elective course, and
6. 12 hours of research courses, including the dissertation.

A. Foundation (Prerequisite) Courses

- ENGL 5309 Introduction to Rhetoric and Writing Studies
ENGL 5345 English Teaching Methods Topic: Teaching College Composition

B. Required Core Courses

- ENGL 6310 Rhetorical History I
ENGL 6311 Rhetorical History II
ENGL 6319 Composition Studies
ENGL 6320 Advanced Critical Theory
ENGL 6321 Rhetoric and Technology

C. Concentration

Students may select a concentration in Composition, Professional Writing, or Rhetoric. They also have the option of creating their own concentration subject to the approval of the Director of Rhetoric and Writing Studies.

1. Composition

- ENGL 5328 Special Topics in Rhetoric and Composition (may be repeated for credit when topic varies)
ENGL 5344 Integrated Teaching Methods
ENGL 5345 English Teaching Methods (may be repeated for credit when topic varies)

2. Professional Writing

- ENGL 5311 Persuasion and Argument
ENGL 5312 Technical Writing Proseminar
ENGL 5314 Computers and Writing Seminar (may be repeated for credit)
ENGL 5315 Professional Writing Seminar (may be repeated for credit)

3. Literary Studies

- ENGL 5325 Genre: Theory and Practice
ENGL 5327 Variable Topics in Contemporary Literature
ENGL 5350 Seminar: Special Topics (may be repeated for credit)
ENGL 5351-56 Literature Seminars

D. Graduate Seminar

- ENGL 6130 Graduate Seminar in Rhetoric (must be taken 3 times)

E. Internship

- ENGL 5317 Professional Writing Internship
Or
ENGL 5318 Community Literacy Internship

F. Electives

Any graduate-level English course, a recommended course* from a related discipline outside of the English Department, or another course subject to the approval of the Director of Rhetoric and Writing Studies.

- *COMM 5332 Seminar in Contemporary Rhetoric
*COMM 5343 Seminar in Communication Theory
*COMM 5350 Directed Study
*ENGL 5375 Creative Writing Workshop
*LING 5331 Teaching Second Language Composition
*RED 5344 Seminar in Reading
*RED 5348 Issues and Problems in Adult Literacy
*SPAN 5304 The Hispanic Essay

G. Research Courses

- ENGL 6395 Dissertation Preparation
ENGL 6398 and
ENGL 6399 Dissertation

H. Maximum Time to Completion

Students accepted into the PhD program in Rhetoric and Composition must complete all requirements for the degree within eight years.

I. Language Requirement

All students must demonstrate a reading knowledge of a language other than English sufficient to conduct research using primary and secondary sources. The PhD program's emphasis on intercultural writing on the U.S./Mexican border will lead many students to elect Spanish to satisfy this requirement.

J. Qualifying Exams

Students will take qualifying exams after successful completion of the language requirement and all courses with the exception of ENGL 6395 and the dissertation.

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not

preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

Information for All Degrees/Concentrations

1. **Undergraduate Credit Hours:** Generally, undergraduate credit hours may not be used to satisfy graduate requirements. Exceptions must be approved by the Graduate Advisor in the English department and the Graduate School and in no cases are to exceed 6 hours. With the prior approval of the Graduate Advisor and the Graduate School, the following undergraduate course may be taken for graduate credit: ENGL 4390.
2. **Foreign Students:** Foreign students must supply a satisfactory grade in a special proficiency test in the English language before being allowed to register (students should write to Graduate Advisor, Department of English, for details).
3. **Graduate Advising:** All students upon entering the graduate program will outline a tentative degree plan with their Graduate Advisor. Students who have deficiencies in their undergraduate preparation are encouraged to supplement their graduate courses with undergraduate courses (no graduate credit).
4. **Programs of Study:** During the first semester of graduate study, all students must submit to the Graduate School for approval of a Preliminary Program of Study signed by their Graduate Advisor. The Preliminary Program of Study should show the courses required by the department that the student must complete prior to graduation. During the final semester of graduate study, each student must submit to the Graduate School for approval a Final Program of Study signed by their Graduate Advisor. The Final Program of Study should show the courses taken and the courses required by the department that the student will complete during his or her last semester of graduate study. Programs that show an incomplete grade or a GPA below 3.0 cannot be approved.

English (ENGL)

For Undergraduate and Graduate Students

4390 Directed Study (0-0-3)

(Has been approved for graduate credit. Students wishing to take this course for credit should see the Graduate Advisor for further information.)

For Graduate Students Only

5130 Topics in Composition (0-0-1)

5230 Topics in Composition (0-0-2)

5330 Topics in Composition (0-0-3)

Discussion, from a basis in discourse theory, of problems surfacing in the teaching of English composition and the application of strategies in the self-contained classroom and other instructional formats. Students may enroll for 1 to 3 hours; the course may be repeated; grading will be pass/fail.

Prerequisites: ENGL 5310 and department approval.

5146 Composition Theory and Pedagogy (1-0)

5246 Composition Theory and Pedagogy (2-0)

5346 Composition Theory and Pedagogy (3-0)

An advanced course in English Composition theory and pedagogy of developmental English and first-year composition.

5197 Master of Arts Research Paper (English and American Literature Concentration) (0-0-1)

The student submits to the Director of Graduate Studies a proposal for expansion and revision of a graduate research paper under the supervision of a director, English Department reader, and an outside reader, and then follows the Graduate School guidelines for preparing and submitting the paper.

Prerequisite: Department approval.

5300 Introduction to Graduate Studies in English (3-0)

Introduces students to the range of scholarly endeavors in English studies, to the standards, methods, and tools of research in the field, and to theoretical assumptions implicit in the various analytical and critical approaches to texts. Course work will include a substantial research project carried out under close faculty supervision.

5301 British Literature to 1485 (3-0)

Study of two or more major schools, literary trends, or genres from the beginnings of literature in Old English through the Middle English period.

5302 British Literature 1485-1660 (3-0)

Study of two or more major schools, literary trends, or genres from the Tudor period through the Commonwealth.

5303 British Literature 1660-1832 (3-0)

Study of two or more major schools, literary trends, or genres from the Restoration through the Romantic period.

5304 British Literature 1832-Present (3-0)

Study of two or more major schools, literary trends, or genres from the Victorian period to the present.

5305 American Literature: Exploration to 1800 (3-0)

Study of two or more major schools, literary trends, or genres from the Age of Exploration to 1800.

5306 American Literature 1800-1865(3-0)

Study of two or more major schools, literary trends, or genres from 1800-1865.

5307 American Literature 1865-1945 (3-0)

Study of two or more major schools, literary trends, or genres from 1865-1945. *Prerequisite:* Department approval.

5308 American Literature 1945-Present (3-0)

Study of two or more major schools, literary trends, or genres from 1945 to the present. *Prerequisite:* Department approval.

5309 Introduction to Rhetoric and Writing Studies (3-0)

A comprehensive introduction to the discipline and sub-fields of Rhetoric and Writing Studies, and to relevant empirical, historical, and theoretical methodologies. Course work will include a substantial research project carried out under close faculty supervision.

5310 Rhetorical Theory (3-0)

An exploration of the three major schools of rhetorical theory, including that of Ancient Greece and Rome, the 18th century, and the modern theorists. To include discussion of the major rhetoricians of each period such as Aristotle, Cicero, and Quintilian; Blair, Campbell, and Whately; I.A Richards, Burke, Toulmin, Perelman, Foucault, Bakhtin, Kinneavey, Moffett, and Britton. The course will also include some rhetorical analyses.

5311 Persuasion and Argument (3-0)

A writing course stressing the application of classical and contemporary rhetorical theory to a variety of practical writing tasks involving argument and persuasion.

5312 Technical Writing Proseminar (3-0)

A writing course focusing upon rhetorical techniques for technical writing, graphics, and editing. May be repeated when topic varies.

5313 Grant Writing (3-0)

Principles and practical applications of writing grant proposals: analyzing requests for proposals, anticipating the needs of reviewers as audience, conforming to application guidelines, preparing executive summaries, project descriptions, outcomes measures, and budgets. Course work will include preparation, under close faculty supervision, of a substantial grant proposal.

5314 Computers and Writing Seminar (3-0)

A variable topics course focusing on the application of computers to professional writing. May be repeated when topic varies.

5315 Professional Writing Seminar (3-0)

Intensive study and practice in a range of professional writing fields, such as organizational and managerial communication, report writing, writing for publication, biography, and translation. May be repeated once when topic varies.

5316 Graduate Writing Workshop (3-0)

Practice, in a workshop setting, of planning, drafting, revising, and editing responses to graduate-level academic assignments typical of a variety of disciplines, including seminar papers, research proposals, research reports, theses, and dissertations. Credit to be determined by the student's major program. May not be used to fulfill requirements for any graduate degree in the English Department. May be repeated.

5317 Professional Writing Internship (0-3)

Supervised professional writing internship in business, industry, government, or the university. *Prerequisite:* Instructor approval.

5318 Community Literacy Internship (0-0-3)

Supervised internship in a community literacy setting. Consent of the instructor required. May be repeated for credit.

5319 English Historical Linguistics (3-0)

An investigation into the origins of English as an Indo-European and Germanic language and its ongoing development in cultural and historic context. Reading of exemplary texts. Attention to the nature of linguistic change. Examination and use of standard research tools. ENGL 5319 is the same course as LING 5319.

5320 Critical Theory and Practice (3-0)

Intensive study of contemporary critical theory, with practice in translating theory into practical readings and valuation of selected literary texts. Includes at least one substantial research project carried out under close faculty supervision.

5321 Literature of the Americas (3-0)

Study of one or more authors; or advanced study of a school, literary trend, or genre in the Literature of the Americas. *Prerequisite:* Department approval.

5322 Literature and Culture (3-0)

Study of a particular culture and the literature derived from that culture. *Prerequisite:* Department approval.

5323 Multi-Cultural Literature: Theory and Practice (3-0)

Study of contemporary critical theory, with practice in translating theory into practical readings and valuation of multi-cultural literary texts. *Prerequisite:* Department approval.

5324 Multi-Cultural Literature: Special Topics (3-0)

Studies in multi-cultural literature. May focus on current literary thought or techniques or on a prescribed area such as a subgenre or literary group. *Prerequisite:* Department approval.

5325 Genre: Theory and Practice (3-0)

Studies in the theory of genre with focus on one genre, such as the novel, the lyric, comedy, or the epic. May be repeated once for credit when the topic varies.

5327 Variable Topics in Contemporary Literature (3-0)

Detailed study of contemporary works in fiction, poetry, or non-fiction, often with bicultural emphasis. The course will stress close analysis of text and technique. May be repeated once for credit when the topic varies.

5328 Special Topics in Rhetoric and Composition (3-0)

Seminar on topics in rhetoric and composition, such as borderlands rhetoric, transformational pedagogy, or material rhetoric. May be repeated when topic varies.

5343 Principles in Teaching Secondary English (3-0)

The development of a theoretical philosophy and pragmatic orientation toward the teaching of English that will enable practicing teachers to collaboratively design lessons, implement lessons on-site, and reflectively assess the quality of their own and others' instruction. *Prerequisite:* Concurrent enrollment in Alternative Certification Program, or department approval.

5344 Integrated Teaching Methods (3-0)

An advance course in English teaching methods, stressing research and theory and their classroom applications, and focusing on teaching literature, composition/rhetoric, grammar/usage, and creative writing in an integrated format.

5345 English Teaching Methods (3-0)

An advanced course in English teaching methods, stressing theory and its classroom applications, and focusing alternately on such topics as teaching literature, composition, grammar, creative writing, or appropriate combinations of these. May be repeated when topic varies.

5350 Seminar: Special Topics (3-0)

Studies in comparative literature, current literary thought or techniques, or a focus on a prescribed area such as a subgenre or literary group. May be repeated once for credit when the topic varies.

5351 Seminar: Studies in British Literature to 1485 (3-0)

Detailed study of one or more authors; or advanced study of a school, literary trend, or genre from the beginnings of literature in Old English through the Middle English period. May be repeated once for credit when the topic varies.

5352 Seminar: Studies in British Literature 1485-1660 (3-0)

Detailed study of one or more authors, or advanced study of a school, literary trend, or genre from the Tudor period through the Commonwealth. May be repeated for credit when the topic varies.

5353 Seminar: Studies in British Literature 1660-1832 (3-0)

Detailed study of one or more authors; or advanced study of a school, literary trend, or genre from the Restoration through the Romantic period. May be repeated once for credit when the topic varies.

5354 Seminar: Studies in British Literature 1832-Present (3-0)

Detailed study of one or more authors; or advanced study of a school, literary trend, or genre from the Victorian period to the present. May be repeated once for credit when the topic varies.

5355 Seminar: Studies in American Literature To 1860 (3-0)

Detailed study of one or more authors; or advanced study of a school, literary trend or genre from the Colonial period to 1860. May be repeated once for credit when the topic varies.

5356 Seminar: Studies in American Literature Since 1860 (3-0)

Detailed study of one or more authors; or advanced study of a school, literary trend, or genre from the Civil War to the present. May be repeated once for credit when the topic varies.

varies.

5371 Tutorial in Poetry (3-0)

Advanced workshop course in which the student is guided towards the production of works of poetry of professional quality. May be repeated once. *Prerequisite:* Department approval.

5390 Directed Studies (0-0-3)

Independent directed studies on an approved topic, to be taught with the consent of the professor and with the approval of the Department Chair Person. *Prerequisite:* Department approval.

5391 M.A. Written and Oral Examination (0-0-3)

Written examination over designated materials will be three hours in length, and the oral examination will be one hour in length. *Prerequisite:* Department approval.

5392 Master of Arts research Paper (0-0-3)

Work on the MA Research Paper. *Prerequisite:* Department approval.

5395 Writing Practicum (0-0-3)

Initial work on a six-hour professional writing and rhetoric practicum. *Prerequisite:* Department approval.

5396 Writing Practicum (0-0-3)

Continuous enrollment required while work on the six hour professional writing and rhetoric practicum continues. *Prerequisites:* ENGL 5395 and department approval.

5397 Writing Practicum (0-0-3)

Enrollment required in the three-hour professional writing and rhetoric practicum. *Prerequisites:* Department approval.

5398 Thesis (0-0-3)

Initial work on the thesis. *Prerequisite:* Department approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisites:* ENGL 5398 and department approval.

For Doctoral Students Only

6130 Graduate Seminar in Rhetoric (1-0)

Presentation and discussion of topics in rhetoric and composition by graduate students, faculty, and visitors.

6310 Rhetorical History I (3-0)

A detailed examination of the development of Western and non-Western rhetoric up to 1700 C.E.

6311 Rhetorical History II (3-0)

An intensive examination of Western and non-Western rhetorical traditions from 1700 to the present.

6319 Composition Studies (3-0)

An investigation of research and theories in composition studies from the 1960's to the present, with emphasis on critical literacy and writing in cultural contexts.

6320 Advanced Critical Theory (3-0)

An intensive study of major authors and debates in contemporary critical theory, with emphasis on intercultural discourse.

6321 Rhetoric and Technology (3-0)

An investigation of computer-mediated communication in education, industry, government, and business.

6395 Dissertation Preparation (0-0-3)

Preparation and defense of a satisfactory dissertation proposal. May be taken only once for credit toward the degree, but students must register for this course during each semester or term in which they are working on their dissertation proposal.

6398 Dissertation (0-0-3)

6398 Dissertation (0-0-3)

Initial work on the dissertation.

6399 Dissertation (0-0-3)

Continuous enrollment required while work on the dissertation continues. *Prerequisite:* ENGL 6398.





History

320 Liberal Arts
(915) 747-5508
history@utep.edu

CHAIRPERSON: Michael Topp

PROFESSORS EMERITI: Kenneth K. Bailey, Wayne E. Fuller, Robert W. Righter, Kenneth B. Shover, W. H. Timmons

GRADUATE FACULTY: Ambler, Brunk, Chavez, Colby, Dailey, Edison, Hackett, Jackson, Kawashima, Leyva, Marquez, C.E. Martin, C.H. Martin, McGee Deutsch, Padurano, Schiavone-Camacho, Shepherd, Topp, Weber

Requirements for Admission

1. Bachelor's degree from an accredited institution in the U.S. or proof of equivalent education in a foreign institution
2. Satisfactory subject preparation and grade point average (GPA)
3. Submission of official Graduate Record Examination (GRE) scores
4. TOEFL score of 213/550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S.

MA Degree Concentrations

Students working toward the Master of Arts degree in History may choose either the standard concentration or a specialized concentration in the history of the United States-Mexico Border. Both concentrations provide degree plans with or without a thesis.

Degree Requirements

Standard Degree Plans (I and II)

Prerequisite: Admission to the Graduate Program in History

Plan I requires the completion of 30 hours, including an acceptable thesis. A Plan I student must complete 9 hours of graduate seminars in history, 9 hours of graduate studies courses in history, and HIST 5398-HIST 5399. The remaining 6 hours may be selected in any combination, from among graduate studies courses, graduate seminars, and upper-division undergraduate courses available for graduate credit. With the permission of the Graduate Advisor, a Minor field in a related discipline may be taken. At least three of the six hours in the Minor must be at the graduate level.

Plan II requires the completion of 36 hours, including the submission of one acceptable seminar paper in lieu of a thesis. A Plan II student must complete 12 hours of graduate studies courses in history, 6 hours of graduate seminars in history, and, in the final semester of work, HIST 5393.

The remaining 15 hours may be selected from among graduate studies courses, graduate seminars, and upper-division undergraduate courses available for graduate credit. In keeping with Graduate School regulations, no more than 9 hours of approved undergraduate courses may be counted for graduate credit and only 6 of these hours may be taken in history; 3 additional hours may be included in a Minor field if a Minor field is selected and approved.

Plan II students must submit the completed seminar paper to the departmental committee that conducts the final examination for the MA degree, as prescribed by the Graduate School.

As a part of the total 36 hours, a student may choose a Minor in a related field, provided the department's Graduate Advisor approves. The Minor requires 6 hours, of which at least 3 must be at the graduate level.

Minor in Public History

Whether choosing Plan I or II, a student may complete a minor in Public History. For the minor, a student must successfully complete HIST 5302, Introduction to Public History, and HIST 5390, Internship in Public History (HIST 5390 may be replaced with HIST 5370, Seminar in U.S. History: Public History). In addition, the student must complete 9 hours of Department of History offerings or selected courses outside the department. These courses must be approved by the Department of History Graduate Advisor. The Minor in Public History will be awarded only in conjunction with the completion of the MA in History degree.

Border History Degree Plans (III and IV)

Prerequisite: Admission to the Graduate Program in History and the completion of the fourth semester of Spanish language instruction with a grade of "B" or better, or successful completion of a department-approved Spanish language competency examination.

Plan III requires the completion of 30 hours, including an acceptable thesis. Specific requirements are as follows:

Seminars: Nine hours required, including the core course in border history and two other courses directly related to the U.S.-Mexico borderlands which must be approved by the Graduate Program Committee.

Studies Courses: Nine hours required. Of the 9 hours, 6 must be related to the U.S.-Mexico Border and must be approved by the Graduate Program Committee.

Other Courses: Six hours of courses related to the U.S.-Mexico Borderlands selected in any combination from seminars, studies courses, upper division undergraduate courses taken for graduate credit, or (with the approval of the graduate advisor) a Minor field in a related discipline. If a minor field is selected, at least one of the courses must be at the graduate level.

Thesis: HIST 5398-HIST 5399.

Plan IV requires the completion of 36 hours; in lieu of a thesis, one revised seminar paper must be submitted to the committee conducting the final examination. Specific requirements are as follows:

Seminars: Six hours required of courses related to the U.S.-Mexico border and which must be approved by the Graduate Program Committee.

Studies Courses: Twelve hours required, of which at least 9 must be related to the U.S.-Mexico Border and must be approved by the Graduate Program Committee.

Other Border Courses: Six hours of graduate history courses or undergraduate history courses taken for graduate credit that relate to the U.S. Mexico Borderlands.

Other Courses: Nine hours from among graduate history courses and upper division undergraduate history courses taken for graduate credit. With the approval of the graduate advisor, a Minor field of six hours in a related discipline may also be selected. (Of the six hours for the Minor, at least three must be at the graduate level.)

Independent Research: HIST 5393. to be taken in the final semester of work.

Limitations on undergraduate courses taken for graduate credit: No more than six hours of undergraduate history courses may be taken for graduate credit. No more than three hours of undergraduate courses may be taken for graduate credit in a Minor field.

Ph.D. Program

The Ph.D. program in History focuses on the history of the Borderlands. The program is rooted in the premise that the Border unites as much as it divides and that the people of the southwestern United States and northern Mexico share many common historical experiences. Students at UTEP experience first-hand the complex political and social realities of a border community and take advantage of the rich opportunities for research in both El Paso and Ciudad Juárez. The degree is intended to prepare students for professional careers as college and university faculty, or as public historians working in such fields as museum administration, historic preservation, archival management, and public policy.

All students in the program complete a field of concentration in U.S.- Mexico Borderlands history and two additional fields chosen from United States history, Mexican and Latin American history, and World history. With the approval of the Graduate Program Committee, students may design an alternative supporting field in history or related fields. Students must demonstrate a reading knowledge of Spanish, except in unusual circumstances where another language may be more appropriate.

Admissions Requirements

In addition to the general requirements for admission to the Graduate School and the graduate program in History listed above, students should meet the following qualifications:

1. Completion of a BA or MA degree in History. Students whose degree was in a field other than history should submit evidence of preparation equal to an undergraduate minor in History (survey courses in US History and World History or Western Civilization; and 12 upper-division hours). Applicants with less than the required preparation may be required to do predoctoral work.
2. Submission of official Graduate Record Examination (GRE) scores
3. Evidence of potential for scholarly work in history (from references and a written personal statement as well as the academic record).
4. TOEFL score of 213/550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S. or another English-speaking country.

Application Procedures

Application forms can be obtained from and should be submitted to the Graduate School of The University of Texas at El Paso. Applications may be submitted at any time, but will be acted upon only once a year. The deadline for the submission of applications for the following academic year is February 1.

The documents to be submitted to the Graduate School are as follows:

1. Official Graduate School application form
2. Transcripts according to the requirements of the Graduate School
3. Official test results on the GRE (and TOEFL if applicable)
4. A two to three-page personal statement outlining the applicant's personal experience, educational background, research interests, career goals, and how the program will benefit the applicant's professional development
5. Three letters of reference from individuals who can evaluate the applicant's potential for graduate academic work and future professional contributions
6. A sample of the student's academic work in the form of a term paper or chapter about 25 pages in length

Course Requirements

All Ph.D. students will be required to take courses at the graduate level (5300 and above) totaling at least 63 semester credit hours. This requirement is composed of core courses (15 hours), seminar courses (9 hours), elective courses (30 hours), and required doctoral dissertation courses (9 hours). Dissertation preparation courses (HIST 6398 and HIST 6399) may be repeated, but counted for credit only once in the above total.

The **core courses** (15 hours) for the degree are as follows:

- HIST 5351 Literature and Methodology of Borderlands History (required)
- HIST 6300 Advanced Topics in Historiography (required)
- HIST 6320 History Teaching and Learning (required)
- HIST 5352 Literature and Methodology of Latin American History
- HIST 5353 Literature and Methodology of United States History
- HIST 5354 Literature and Methodology of World History

Literature and methodology courses in the student's two additional fields of concentration should be chosen from the following: HIST 5352, 5353, 5354. Students choosing a composite field in history or an interdisciplinary field outside history must take an equivalent course in the literature and methodology of the field.

The **seminar courses** (9 hours) may be selected from any of the research seminars HIST 5370-5382. Seminars may be repeated for credit if the topic varies.

The **free electives** (30 hours) must be chosen from among the following:

Literature and methodology courses (HIST 5352-5354) other than those taken to satisfy the core requirements

Research seminar courses: HIST 5370-5382

Studies courses: HIST 5304-5321

Public History courses: HIST 5302 Introduction to Public History; HIST 5390 Public History Internship

Courses from a graduate program outside history (5300 level) if appropriate to the field of study, with approval of the Graduate Advisor

The required **doctoral dissertation** courses (9 hours) are as follows:

- HIST 6301 Dissertation Planning Course
- HIST 6398/
and 6399 Dissertation

Dissertation courses may be repeated, but count for only 6 credit hours in the total of 63 semester credit hours.

Two C's

Ph.D. students who receive two or more grades of "C" will be formally reviewed, and the Graduate Program Committee will make a recommendation as to whether the student should be allowed to continue in the program.

Language Requirement

Students must demonstrate reading proficiency in the Spanish language by the time they complete 36 semester credit hours. Students are required to have a reading knowledge of Spanish sufficient to conduct research in primary and secondary sources in that language. Alternate languages may be accepted by the Graduate Program Committee where appropriate to the student's research. Course work taken to meet the language requirement will not be counted in the 63 hours required for the Ph.D. degree.

Transfer with Graduate Credit

Students accepted into the Ph.D. program with graduate credit (from UTEP or another institution) will be required to meet the specific degree requirements stated above. The student may petition the Graduate Program Committee to accept up to 30 hours of credit toward the degree. If titles of the transferred courses differ substantially from the history courses listed in this catalog, the student will be requested to provide documentation to the Committee that the courses transferred are equivalent in content. The required core courses (HIST 5351-54 and HIST 6320) cannot be met by transferred credit.

Maximum Time for Completion of the Ph.D. Degree

Students in the Ph.D. program in History must complete all requirements for the Ph.D. within eight years of their admission to the program. The eight-year period begins with the semester in which the first courses are taken after receiving formal acceptance into the program. Extensions of the period can be granted by the Graduate Program Committee in response to written petitions from the candidate if, in their judgment, final completion of the degree requirements by the candidate is considered likely.

Qualifying Examinations

Qualifying examinations must be taken upon completion of all course work except the 9 hours of dissertation courses. Students must enroll in HIST 6300 (Advanced Topics in Historiography) the semester before they take the qualifying examinations. Students will be examined in three geographical fields of concentration: Borderlands history (required) and two additional fields chosen from the following areas: United States history, Mexican and Latin American history, and World history, or in a previously arranged composite field. The Graduate Program Committee will appoint examining committees for each of the three fields.

Failing Qualifying Examination Twice

Ph.D. students who fail the same qualifying exam more than once will be formally reviewed, and the Graduate Program Committee will make a recommendation as to whether the student should be allowed to continue in the program.

Dissertation

Students must complete a doctoral dissertation containing substantial original research using primary documents, under the supervision of a dissertation advisor. After completing the qualifying examinations, students will prepare for the dissertation by taking HIST 6301 (Dissertation Preparation) under the direction of the dissertation advisor. A committee of three department faculty and one outside faculty member will be selected. The candidate will prepare a formal Dissertation Proposal that must be approved by the dissertation committee, the Graduate Advisor, and the Graduate Program Committee.

Ph.D. Oral Examination

On completion of the dissertation, the candidate will be required to make an oral defense of the dissertation before the dissertation committee, the faculty, and the general public.

Microfilming of Dissertations

The doctoral candidate who has successfully completed the above requirements will be required to pay the cost of a microfilm copy of the dissertation. The signed original copy (unbound) of the dissertation will be sent by the Graduate School to University Microfilms in Ann Arbor, Michigan, for reproduction.

Along with the original copy of the dissertation, the student must submit to the Graduate School two copies of an abstract, not to exceed 350 words in length (double-spaced), which has been approved in final form by the dissertation committee. This will be published in *Dissertation Abstracts International*.

Prerequisite

Completion of the fourth semester of Spanish language instruction with a grade of "B" or better, or successful completion of a department-approved Spanish language competency examination.

M.A. for students enrolled in the Ph.D. Program

Students who enter the Ph.D. program directly upon completion of the bachelor's degree will be reviewed formally at an early stage of their graduate careers (normally at the completing of 18 semester credit hours of graduate work) to determine whether they should be encouraged to continue their work for the degree. Those who are cleared for continuation toward the doctorate will be awarded an MA after completing thirty-six hours of approved coursework, including twelve hours of research seminars; these students will not be required to complete an MA thesis or to submit a revised seminar paper in lieu of a thesis.

Border History M.A. for students enrolled in the Ph.D. Program

Those Ph.D. students who are cleared for continuation toward the doctorate may receive an MA with a Border History concentration by completing 36 hours of approved coursework, which must include 12 hours of graduate research seminars (nine of which must relate to the U.S.-Mexico Border), nine hours of graduate studies courses (of which six must relate to the U.S.-Mexico Border), six hours of undergraduate courses taken for graduate credit (selected from History 3309, 3312, 3316, 3322, 3328, 3342, and 3390 [when the topic is related to the U.S.-Mexico Border]), and nine additional hours of graduate courses. With the approval of the Graduate Advisor, graduate seminars or studies course that relate to the U.S.-Mexico Border may be substituted for the required undergraduate courses. Students will not be required to complete an MA thesis or to submit a revised seminar paper in lieu of a thesis.

Students who voluntarily withdraw from the Ph.D. program or who are denied permission to continue in the Ph.D. Program

Students who have been reviewed and who are denied permission to continued work toward the doctorate, or those who voluntarily withdraw from the doctoral program, will be permitted to complete the MA degree (Plans 1, 2, 3 or 4) according to existing departmental requirements.

History (HIST)

For Undergraduate and Graduate Students

The following undergraduate courses have been approved for graduate credit. Students taking these courses for graduate credit will be required to do additional work.

3301 Colonial America to 1763

3302 The American Revolution and the New Nation, 1763-1815

3302 The American Revolution and the New Nation, 1763-1815

3303 The U.S. Mexican War

3304 The Age of Jackson, Clay, and Webster, 1815-1860

3305 The Civil War and Reconstruction Era, 1860-1877

3306 From Plutocracy to Progressivism, 1877-1917

3307 The Interwar Years, 1918-1941

3308 United States since 1941

3309 Mexican-American History

3310 American Legal History

3311 History of American Foreign Relations to 1914

3312 History of American Foreign Relations since 1914

3313 American Military History

3314 Main Currents in American Thought to 1865

3315 Main Currents in American Thought since 1865

3316 Southwest Frontier

3317 History of Texas since 1821

3321 19th Century American West

3322 20th Century American West

3323 American Indian History

3324 The United States in Vietnam and Southeast Asia

3325 History of Immigration and Ethnicity in the U.S.

3326 Life and Labor in the U.S. in the 19th and 20th Centuries

3327 Racial Thought in U.S. History

3328 History of Hispanic Peoples in the United States

3329 African American History

3330 East Asia

3331 History of Religion in the East

3332 Russia

3333 The Soviet Union

3337 Modern Africa

3339 Pyramids and Prophets: Ancient Egypt, Mesopotamia and Palestine

3340 The Middle East and Islam

3342 The Spanish Borderlands

3346 Central America and the Caribbean

3347 Argentina, Brazil, and Chile since 1810

3348 Environmental History of Latin America

3349 History of Mexico to 1900

3350 The Mexican Revolution

3354 England to 1603

3355 England since 1603

3359 History of Religion in the West

3360 Ancient Greece

3361 Hellenism and the Coming of Rome

3362 The Medieval World

3363 The Roman Empire

3364 The Age of Renaissance

3365 The Age of the Reformation

3366 The Age of Absolutism and Enlightenment

3367 The French Revolution and Napoleonic Eras

3368 Nineteenth Century Europe

3369 Twentieth Century Europe, 1900 to the Present

3370 The Holocaust in Europe

3374 Modern Germany since 1866

3381 The History of Spain and Portugal

3382 Spain in the Age of Expansion, Eighth-Sixteenth Centuries

3390 History, Special Topics

3391 History of Women

3399 History and Historians

Studies Courses

Graduate Studies Courses are designed to provide a flexible approach to the study of history in various general areas. The specific topic studied will vary from semester to semester; each semester, a brief description will be found in the published schedule of classes. Generally, studies courses involve reading, discussion, and writing, but depending on the nature of the topic, lectures or other approaches may be employed.

5302 Introduction to Public History (3-0)

Emphasizes history careers apart from traditional teaching jobs. Fields such as archive and museum management, historic preservation, cultural resource management, and policy planning will be explored.

5304 Studies in Public History (3-0)

Survey of a major theme in Public History with special emphasis on reading and discussion of significant topics. Possible topics might include history and memory; historic preservation; cultural conservation; oral history; race, gender and class in public history, media and public history, historical interpretation in urban settings. May be repeated for credit when topic varies.

5305 Studies in United States History (3-0)

Focuses in depth on a theme, movement, or period of significance in United States history. Past topics have included the family in colonial America, quantification in history, American slavery, the West in fact and fiction, U.S. foreign policy in Southeast Asia, Progressivism, and great American historians. Historical interpretation is usually emphasized. May be repeated for credit when topic varies.

5306 Studies in World History (3-0)

Survey of a major topic, period, or region in World History, with special emphasis on reading and discussion of significant historiographical interpretations. Topics might include comparative colonialism, migration, trade and development, racism, comparative social structures, cultural exchange, and movements and methods of resistance. May be repeated for credit when topic varies.

5309 Studies in Latin American History (3-0)

Survey of a major topic or period in Latin American history, with special emphasis on reading and discussion of significant historiographical interpretations. Typical topics include the Indian in Mexican history, the history of underdevelopment in Latin America, and women and the family in Latin America. May be repeated for credit when topic varies.

5312 Studies in Borderlands History (3-0)

Survey of a major topic in the history of the Spanish Borderlands to 1821 or the U.S.-Mexico Borderlands region since 1821, with special emphasis on reading and discussion of significant historiographical interpretations. Possible topics are the history of the El Paso region, the Mexican Revolution in the Borderlands region, and the Chicano Movement. May be repeated for credit when topic varies.

5316 Studies in European History (3-0)

Focuses in depth on a theme, movement, or period of significance in European history. Topics could include problems such as: the Renaissance, the Reformation, the Industrial Revolution, the French Revolution, Nazism, modern social history methods; or could be focused on specific countries during a particular period such as Soviet Russia, modern Germany, Tudor-Stuart England, ancient Greece, medieval France, and the like. Historical interpretation is usually emphasized. May be repeated for credit when topic varies.

5345 Independent Reading (0-0-3)

Exploration of an historical theme or topic mutually agreeable to the professor and student. Substantial reading and writing required; periodic conferences with the professor. *Prerequisite:* Instructor approval.

5351 Literature and Methodology of Borderlands History (3-0)

A survey of the principal themes and methodological approaches in the study of history of the Borderlands region.

5352 Literature and Methodology of Mexican and Latin American History (3-0)

A survey of the principal themes and methodological approaches in the study of Mexican and Latin American history.

5353 Literature and Methodology of United States History (3-0)

A survey of the principal themes and methodological approaches in the study of United States history.

5354 Literature and Methodology of World History (3-0)

A survey of selected key themes and methodological approaches in the study of history outside the Americas. May be repeated for credit when emphasis varies.

6300 Advanced Topics in Historiography (3-0)

In-depth readings on selected topics. Consent of instructor and graduate advisor required. May be taken only once for credit toward degree, but students must register for this course during each semester or term in which they are preparing for or taking qualifying examinations.

6320 History Teaching and Learning (3-0)

Reading, lecture, discussion, and field practice in the methodology and theory of teaching and learning history. Students will be assisted in the preparation of teaching portfolios, in the development of lecturing techniques, in the implementation of active learning strategies, and the possibilities of educational technologies. Students in the course will teach a course in conjunction with the course under the supervision of a faculty mentor.

6395 Problems in Historical Research (0-0-3)

Emphasizes research, with writing and discussion. To be taken in conjunction with History 3598 or 3599, or History 3620 or 3621. Students will be required to make a formal presentation of the results of their ongoing research. Grading will be pass/fail. This course cannot be used for credit toward the MA or Ph.D. degree. Consent of the Graduate Advisor required. *Prerequisite:* Department approval.

Seminars

Graduate seminars usually involve discussion of research methodologies and some background reading; however, primary emphasis is on research in original resources, with students writing a substantial seminar paper based on the research.

5370 Seminar in United States History (3-0)

Focuses in depth on a theme, movement, or period of significance in United States history. Areas from which topics have been chosen in the past include Colonial and Revolutionary America, American Foreign Relations, the Chicano, American Intellectual History, Modern America, the American South, the Civil War and Reconstruction Period, Texas History, the American West, and American Military History. May be repeated for credit when topic varies.

5374 Seminar in Borderlands History (3-0)

Focuses in depth on a theme, movement, or period of significance in Borderlands history. Topics might include the history of the El Paso region, Chicanos/as in the Borderlands, the creation of the U.S.-Mexico border, or economic transformations in the region. May be repeated for credit when topic varies.

5376 Seminar in World History

Focuses in depth on a theme, movement, or period of significance in World History. Possible topics might include migration, borders, trade, globalization, war, science, industrialization, empire, leadership, race, and gender. May be repeated for credit when topic varies.

5377 Seminar in Latin American History (3-0)

Focuses in depth on a theme, movement, or period of significance in Latin American or Border history. Areas from which topics have been chosen in the past include all aspects and time periods of Mexican history, nineteenth and twentieth-century problems in other Latin American countries and Central American history. May be repeated for credit when topic varies.

5379 Seminar in African History (3-0)

Introductory readings and research on themes in nineteenth or twentieth century African history. Particular focus on the relations between Africa and Europe and the United States. May be repeated for credit when topic varies.

5382 Seminar in European History (3-0)

Focuses on a theme, movement, or period of significance in European history. Topics could include themes in European history, such as military history, religion and society, family history, women's history, or revolution; or they could concern a particular area and time period such as modern Britain, Soviet Russia, modern Germany, and the like. May be repeated for credit when topic varies.

Thesis and Independent Research**5390 Public History Internship (0-0-3)**

History work experience in a public agency, museum, archive, history consulting business, or other business. Evaluation by work place supervisor and instructor. May be considered for seminar credit if appropriate project is completed.

5393 Independent Research (0-0-3)

Open only to Plan II and Plan IV graduate students in history in the final semester of work.

5395 Problems in Historical Research (0-0-3)

Emphasizes research, with writing and discussion. To be taken in conjunction with HIST 5393, HIST 5398, or HIST 5399. Students will be required to make a formal presentation of the results of their ongoing research. Grading will be pass/fail; this course cannot be used for credit toward the MA degree. *Prerequisite:* Consent of the Graduate Advisor.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisite:* HIST 5398.

5695 Problems in Historical Research (0-0-6)

Emphasizes research, with writing and discussion. To be taken in conjunction with HIST 5393, HIST 5398 or HIST 5399. Students will be required to make a formal presentation of the results of their ongoing research. Grading will be pass/fail; this course cannot be used for credit toward the MA degree. *Prerequisite:* Consent of the Graduate Advisor.

6301 Dissertation Preparation (3-0)

Preparation and approval of a satisfactory dissertation proposal. Required of all doctoral students before admission to candidacy. May be taken only once for credit toward the degree, but students must register for this course during each semester or term in which they are working on their dissertation proposal.

6398 Dissertation (0-0-3)

The student must register for 6398 when work on the dissertation is begun, after the dissertation proposal has been approved. Thereafter, the student must register for 6399 during each semester or term in which work on the dissertation is being done. Credit toward the degree is given only one time per course.

6399 Dissertation (0-0-3)

The student must register for 6398 when work on the dissertation is begun, after the dissertation proposal has been approved. Thereafter, the student must register for 6399 during each semester or term in which work on the dissertation is being done. Credit toward the degree is given only one time per course.

6695 Problems in Historical Research (0-0-6)

Emphasizes research, with writing and discussion. To be taken in conjunction with History 5398 or 5399, or History 6320 or 6321. Students will be required to make a formal presentation of the results of their ongoing research. Grading will be pass/fail. This course cannot be used for credit toward the MA or Ph.D. degree. Consent of the Graduate Advisor required. *Prerequisite:* Department approval.



Languages and Linguistics

137 Liberal Arts
(915) 747-5767
lgsling@utep.edu

CHAIR: Kirsten F. Nigro

PROFESSORS EMERITI: Richard Ford, Arturo Perez

ASSOCIATE PROFESSORS EMERITI: Sandra Beyer, Eleanor Cotton, Frederick Kluck

GRADUATE FACULTY: Amastae, Armengol, Bagby, Blansitt, Courtney, Elerick, Ford, Garabano, Garcia, Loudon, Nigro, Sobin, Teschner

The department offers two graduate degrees: (1) the MA in Linguistics with available additional concentrations in Applied Linguistics and in Hispanic Linguistics, (2) the MA in Spanish.

Linguistics

Requirements for Admission

1. Bachelor's degree from an accredited institution in the U.S. or proof of equivalent education in a foreign institution
2. Undergraduate degree or satisfactory subject preparation in linguistics, a language, or a related field resulting in a satisfactory grade point average (GPA) (Where there is a question of sufficient background, a program of leveling courses not to exceed 12 hours will be arrived at in consultation with the graduate advisor.)
3. (For Hispanic linguistics only) Competency in both Spanish and English
4. Submission of official Graduate Record Examination (GRE) scores
5. TOEFL score of 213/550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S.

Degree Requirements (36 hours)

Thesis and Non-thesis options and hours

There are one thesis and two non-thesis options. Each student must choose one of these options. The thesis option requires LING 5398 and LING 5399, in addition to the requirements of 9 core hours and 21 elective hours. The thesis will be presented in an open defense. One non-thesis option involves an extended research paper, which will be presented in an open defense. This option requires LING 5397, in addition to the requirements of 9 core hours and 24 elective hours. The second non-thesis option involves extended course work, requiring 9 core hours and 27 elective hours. With this option, there will be a final open oral and/or written examination in the candidate's chosen primary area of study. In more detail, the requirements for each degree option, including the concentration possibilities mentioned above, are as follows:

MA degree in Linguistics (no concentration)

A. Core Requirements

- LING 5301 Principles of Linguistic Analysis
- LING 5309 Generative Syntax **or**
- LING 5312 Functionalist Syntax
- LING 5320 Phonology

B. AND EITHER

- a thesis (LING 5398 and LING 5399), and
- 21 additional hours of graduate linguistics courses

OR

- an extended paper (LING 5397), and
- 24 additional hours of graduate linguistics courses

OR

- examination/open presentation of an area of interest beyond individual course work, and
- 27 additional hours of graduate linguistic courses

Concentration in **Applied Linguistics (AL)** with a theses **OR** extended paper

A. Core Requirements

- LING 5301 Principles of Linguistic Analysis
- LING 5309 Generative Syntax **or**

LING 5312 Functionalist Syntax

LING 5320 Phonology

B. LING 5348 Second Language Acquisition

C. An advanced course in or relevant to AL (as agreed by student and graduate advisor)

D. AND EITHER

-a thesis in AL (LING 5398 and LING 5399), and

-15 additional hours of graduate linguistics courses

OR

-an extended paper in AL (LING 5397), and

-18 additional hours of graduate linguistics courses

Concentration in **Hispanic Linguistics** (HspLX) with a thesis OR extended paper:

A. Core Requirements

LING 5301 Principles of Linguistic Analysis

LING 5309 Generative Syntax **or**

LING 5312 Functionalist Syntax

LING 5320 Phonology

B. LING 5348 Second Language Acquisition

C. An advanced course in or relevant to HspLx (as agreed by student and graduate advisor)

D. AND EITHER

-a thesis in HspLX (LING 5398 and LING 5399), and

-15 additional hours of graduate linguistics courses

OR

-an extended paper in HspLx (LING 5397), and

-18 additional hours of graduate linguistics courses

Spanish

Admission to the Program

1. Fulfillment of all general requirements for admission to the Graduate School
2. Completion of four upper-division undergraduate survey courses in Spanish and Spanish American literature with a grade of "C" or better (SPAN 3301, 3302, 3303, 3304 at UTEP or their equivalent at other institutions). Applicants who have not taken all such courses or who have not completed one or more of them with a grade of "C" or better may be granted conditional admission but will be required to make up any deficiency by enrolling in the appropriate course(s) during their first semester. Such courses will not count toward the degree.

Degree Requirements

MA in Spanish

1. Complete 36 hours of work, including the appropriate options chosen from "Required Courses and Subject Areas" listed below. With the approval of the Committee on Graduate Studies, a student may present a minor consisting of 6 to 12 hours in a related field.
2. Complete course 2302 (fourth semester) in a second foreign language with a grade of at least "B", or demonstrate equivalent proficiency.

Must select Plan I or Plan II below:

Plan I (Non-Thesis Option): Complete SPAN 5397 Seminar in Hispanic Literary Research, which counts for 3 of the required 36 hours of work.

Plan II (Thesis Option): Complete SPAN 5398-SPAN 5399, Thesis, which counts for 6 of the required 36 hours of work. The Committee on Graduate Studies must approve a prospectus outlining the proposed thesis. The thesis will be defended orally.

Required Courses and Subject Areas

In order to ensure a balanced course of study, all students must complete 21 credit hours distributed as follows:

1. Required Course: SPAN 5301

Required Courses: SPAN 5333, SPAN 5334, or SPAN 5335.

2. Required Subject Areas

a. Spanish Peninsular Literature

- (1) One course in Golden Age (SPAN 5333, SPAN 5334, or SPAN 5335)
- (2) One course in Twentieth Century (SPAN 5340 or SPAN 5341)

b. Spanish American Literature

- (1) One course in Prose Fiction (SPAN 5319 or SPAN 5321)
- (2) One course in Poetry (SPAN 5315 or SPAN 5317)

c. Hispanic Linguistics

- (1) One course. Students who have not taken SPAN/LING 3309 (or the equivalent) prior to undertaking MA course work will be required to take this course, which will count for credit toward the MA. Those who have completed SPAN/LING 3309 before entering the master's program will be required to complete one of the following: SPAN/LING 4372, SPAN/LING 5385, or SPAN/LING 5388.

d. One course selected from the following:

- (1) SPAN 5304
- (2) SPAN 5335
- (3) A second course in Hispanic linguistics

For Undergraduate and Graduate Students

French (FREN)

4301 Methods of Foreign Language Instruction

4387 Poetry

4388 Prose

4389 Theater

4390 Topics in French

Linguistics (LING)

4301 Methods of Foreign Language Instruction

4306 Language Acquisition

4316 Language and Cognition

4348 Analyses of Second Language Acquisition

4371 Studies in Linguistics

4372 Contrastive Linguistics: Spanish/English

Portuguese (PORT)

4390 Topics in Portuguese

Spanish (SPAN)

4301 Methods of Foreign Language Instruction

4324 The Literature of Mexico

4238 Golden Age Drama

4335 Nineteenth Century Spanish Novel

4339 The Short Story

4341 Modern Drama

4358 Twentieth Century Spanish Literature

4360 Twentieth Century Spanish American Novel

4361 Cervantes

4363 Spanish American Poetry

4372 Contrastive Linguistics: English/Spanish

4390 Topics in Spanish

Translation (TRAN)

4381 Commercial and Legal Translation

4382 Translation from the Information Media

4383 Literary Translation

4384 Introduction to Interpretation

4384 Introduction to Interpreting

4389 Topics in Translation

4390 Senior Project in Translation

For Graduate Students Only

French (FREN)

5390 Topics in French (3-0)

Linguistics (LING)

5107 Seminar in Special Topics in Linguistics (1-0)

5301 Principles of Linguistic Analysis (3-0)

A survey of the precepts and procedures of modern linguistic analysis with special attention to the fundamentals of phonetics, phonology, and syntax.

5308 Second Language Teaching—English (3-0)

A study of the principles underlying modern second-language teaching, and their application, with particular reference to English as a second language. Includes use of audio-visual equipment.

5309 Generative Syntax (3-0)

An investigation of the syntax of natural language from the perspective of modern generative grammar. *Prerequisite:* LING 3302, LING 5301, or equivalent background.

5310 Pedagogical Issues in English Structure (3-0)

The structure of English grammar from the perspective of pedagogical concerns.

5312 Functionalist Syntax (3-0)

A study of Tagmemic and Paris School grammatical frameworks. Analysis of languages of a wide typological range.

5319 English Historical Linguistics (3-0)

An investigation into the origins of English as an Indo-European language and Germanic language and its ongoing development in cultural and historic context. Reading of exemplary texts. Attention to the nature of linguistic change. Examination and use of standard research tools.

5320 Phonology (3-0)

The phonetic basis of modern phonological analysis; phonological systems and structures; theory and practice in phonological analysis.

5330 Computer-Assisted Language Learning (3-0)

An investigation of the use of computers to enhance second language learning. Includes the study of current research and developing skills for using computers effectively.

5331 Teaching Second Language Composition (3-0)

A study of the writing process in second-language learning and the principles and practice of teaching composition to this population.

5341 Psycholinguistics and Reading (3-0)

An inquiry into the fundamental aspects of the reading process—linguistic, psychological, and physiological.

5348 Second Language Acquisition (3-0)

An investigation of the results and techniques of current research in second language acquisition, with some attention to implications for second language teaching.

5370 Study in Language (3-0)

Topic to be discussed will be selected. May be repeated for credit when topic varies.

5373 Linguistic Variation (3-0)

A study of linguistic varieties and variation; particular attention to methods and hypotheses of different approaches.

5374 Language Testing (3-0)

A study of the principles of effective language testing, with special attention to second-language testing.

5378 Language Universals and Typology (3-0)

A survey of findings regarding language and typology and language universals. Attention to major questions that motivate ongoing research.

5381 Spanish Phonetics and Phonology (3-0)

Analysis of the sounds and sound patterns of Spanish. *Prerequisites:* LING 5301 and LING 5320.

5382 Spanish Syntax (3-0)

A survey of the major syntactic phenomena of Spanish. *Prerequisites:* LING 5301 and LING 5309.

5383 Spanish Morphology (3-0)

Analysis of the major morphological structures of Spanish.

Prerequisite: LING 5301.

5385 Spanish Historical Linguistics (3-0)

A study of the origins of Spanish as a reflex of Latin and as a Romance language. Reading of texts of historical interest. Attention to the nature of linguistic change. Examination and use of standard research tools.

5388 Bilingualism (3-0)

A study of the formal and sociolinguistic dimensions of bilingualism. Attention to aspects of language planning and linguistics as a contributing factor in the devising of public policy.

5397 Extended Research Project (3-0)

Advanced work on a topic of research in linguistics culminating in a paper and an oral presentation/defense. For non-thesis option students only. *Prerequisite:* 24 graduate hours in linguistics.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.

Prerequisite: LING 5398.

Spanish (SPAN)

General

5301 Critical Approaches to Hispanic Literature (3-0)

Examination of historical and contemporary literary analysis, techniques, and theories and their application to Spanish-language prose, poetry, theater, and essays. Required of all MA candidates.

5302 Independent Study (0-0-3)

Subject to be determined in consultation with the Graduate Advisor.

Prerequisite: Department approval.

5303 Special Topics (3-0)

An examination of a particular area of Hispanic languages or literature. May be repeated for credit as topic changes. *Prerequisite:* Department approval.

5304 The Hispanic Essay (3-0)

The development and influence of the essay in the Hispanic world. Included in the readings are both Peninsular and Latin American writers.

5381 Spanish Phonetics and Phonology (3-0)

Analysis of the sounds and sound patterns of Spanish. *Prerequisites:* LING 5301 and LING 5320.

5382 Spanish Syntax (3-0)

A survey of the major syntactic phenomena of Spanish.

Prerequisites: LING 5301 and LING 5309.

5383 Spanish Morphology (3-0)

Analysis of the major morphological structures of Spanish.

Prerequisite: LING 5301.

5385 Spanish Historical Linguistics (3-0)

A study of the origins of Spanish as a reflex of Latin and as a Romance language. Reading of texts of historical interest. Attention to the nature of linguistic change. Examination and use of standard research tools.

5388 Bilingualism (3-0)

A study of the formal and sociolinguistic dimensions of bilingualism. Attention to aspects of language planning and linguistics as a contributing factor in the devising of public policy.

5389 Problems in Language Instruction (3-0)

A course designed for language teachers involving study of psychological, linguistic and methodological aspects of language instruction and testing. Same as LING 5389. May be repeated once for credit when topics vary.

5397 Seminar in Hispanic Literary Research (3-0)

Advanced work on a topic of research in Hispanic literature culminating in a paper and a final open oral and/or written examination. For non-thesis option students only.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.

Prerequisite: SPAN 5398.

Spanish American Literature

5311 Indigenous and Colonial Literature of Spanish America (3-0)

Readings in Spanish translations of important works of the Mayan, Nahuatl, and Incan cultures. Selected works of Hispanic discoverers, conquistadors, and literati from 1492 through the eighteenth century.

5314 Nineteenth Century Spanish-American Literature (3-0)

Study of major Spanish-American works of the nineteenth century exclusive of Modernism; notably, Neoclassic and Romantic poetry, Romantic and Realist narrative, and Gauchesque poetry.

5315 Premodernist and Modernist Poetry (3-0)

Readings in the works of major Spanish poets of the nineteenth and early twentieth century, with special attention placed upon Rubén Darío and his school.

5317 Postmodernist and Contemporary Poetry (3-0)

Readings in the works of major Spanish-American poets from approximately 1910 to the present.

5319 Spanish-American Short Story (3-0)

Development of the short story form in Spanish America from its origin in the nineteenth century to the present.

5321 Twentieth Century Spanish-American Novel (3-0)

Readings from selected works of contemporary Spanish-American novelists.

Spanish Literature

5332 Spanish Literature to 1500 (3-0)

A study of the most representative works of medieval and early renaissance Spain, including *El Cid*, *Las Cantigas de Santa María*, *El Libro de Buen Amor*, *El Conde Lucanor*, *El Romancero*, and *La Celestina*.

5333 Golden Age Drama (3-0)

Readings in major works of Spain's classical theater, by authors such as Lope de Vega, Tirso de Molina, and Calderón de la Barca.

5334 Golden Age Prose and Poetry (3-0)

Representative readings from Spain's major poets and/or writers of the sixteenth and seventeenth centuries.

5335 Cervantes (3-0)

A thorough reading and substantial analysis of *El Ingenioso Hidalgo Don Quixote de la Mancha*, plus two or three of the *Novelas ejemplares*.

5340 The Generation of 1898 (3-0)

Selections from the writings of important members of this literary generation, including Unamuno, Azorín, Ortega y Gasset, Baroja, and Antonio Machado.

5341 Twentieth Century Spanish Literature (3-0)

Readings in the works of modern Spanish literature, with emphasis on poetry and/or narrative prose fiction written after the Generation of 1898 to the present.





Liberal Arts Interdisciplinary Studies

The College of Liberal Arts offers three interdisciplinary studies programs leading toward the master's degree. These programs are the Master of Arts in Interdisciplinary Studies (MAIS), Master of Arts in Latin American and Border Studies and the Master of Fine Arts in Creative Writing (MFA).

Master of Arts in Interdisciplinary Studies

307 Hudspeth Hall
(915) 747-5647
mais@utep.edu

PROGRAM DIRECTOR: Robert Bledsoe

The MAIS program is designed for individuals who, having completed a baccalaureate program or professional degree program at an accredited college or university, wish to expand their knowledge in areas outside of their previous training or present profession. To this end, each student will participate in the design of a plan of study consisting of courses offered by a variety of departments.

Basic Requirements for Admission

1. A bachelor's degree from an accredited institution in the United States (or proof of equivalent training in a foreign institution)
2. A satisfactory grade point average (GPA) in upper-division (junior and senior level) work and in any graduate work already completed
3. Submission of official Graduate Record Examination (GRE) scores
4. Submission to the MAIS Advisory Committee of an acceptable Admission Essay and Plan of Study
5. Acceptance by the MAIS Advisory Committee and by the Graduate School

Specific Requirements for the MAIS Degree

1. Thirty-six semester hours of course work, no more than nine of which may be in a single disciplinary area, and of which no more than nine may be outside of the College of Liberal Arts. Exceptions to the nine-hour limitations may be made under unusual circumstances. Exceptions must be approved by the MAIS Advisory Committee and by the Graduate School.
2. A minimum of 27 semester hours of graduate-level courses; the remaining nine hours may be selected from among graduate-level courses and/or upper-division undergraduate courses. (Any undergraduate course taken for MAIS credit must be specifically designated in the catalog as "For Undergraduate and Graduate Students.")
3. A minimum of six semester hours of course work from among the MAIS core seminars.
4. Successful completion of MAIS 5393 Final Project. The Final Project will be submitted to the committee conducting the student's final oral examination. Upon successful completion of the final examination, a copy of the Final Project will be bound and submitted to the MAIS Program archives.
5. Successful completion of the final oral examination and approval of the Graduate School.

MAIS Core Seminars

5350 The History of an Idea (3-0)

The historical consideration of a seminal idea or concept drawn from art, ethics, politics, science, religion, or philosophy, and an assessment of its contemporary social and cultural importance. This course may be team-taught and cross-listed with a participating department. May be repeated once for credit when the topic varies.

5360 Contemporary Issues (3-0)

The detailed examination of a contemporary social or cultural concern from a multi-disciplinary perspective. This course may be team-taught and cross-listed with a participating department. May be repeated once for credit when topic varies.

MAIS Final Project

5393 MAIS Final Project

The final project normally consists of either: 1) two substantially revised or extended papers originally prepared for two of the graduate level courses taken as part of the MAIS program, one of which must have been written for MAIS 5350 or MAIS 5360; or (2) a new interdisciplinary paper which is based on two or more papers prepared for graduate level courses taken as a part of the MAIS program. Open only to MAIS students in the final semester of their work. If the project is not completed in one semester, students will register for MAIS 5393 during each semester or summer session in which work on the final project is being done, but only 3 hours of credit will count toward the degree.
Prerequisite: Department approval.

Master of Arts in Latin American and Border Studies

Physical Address:
1514 Hawthorne Street
(915) 747-5196/5157
cibs@utep.edu

Mailing Address:

EXECUTIVE DIRECTOR: Ricardo Blázquez

The College of Liberal Arts offers an interdisciplinary Master of Arts degree with a major in Latin American and Border Studies.

Requirements for Admission

Admission to the MA program in Latin American and Border Studies will follow the general admissions requirements of the UTEP Graduate School. In addition, it will require a 3.0 minimum upper division undergraduate GPA. Because the program is interdisciplinary, no specific undergraduate major is required. However, admission requires the completion of an essay that addresses the student's specific interest in participating in the program. Students without any undergraduate credits in any area related to Latin America or Border studies may be required to complete up to 9 hours of undergraduate work in the area of Latin American and Border Studies.

Requirements for the Degree

| | Thesis | Non-Thesis |
|----------------------|--------|------------|
| Core Courses | 9 | 9 |
| Prescribed Electives | 9 | 12 |
| Free Electives | 6 | 9 |
| Thesis | 6 | 0 |
| Total Credit Hours: | 30 | 30 |

a. Foundation Courses

1. for undergraduate programs, general education/core curriculum;
2. for graduate programs, prerequisite/leveling courses;

b. Courses required of all students in the proposed program;

All students must complete the following core courses:

LABS 5301 Issues in Border Studies

LABS 5302 Issues in Latin American Studies

LABS 5390 Research Seminar in Latin American and Border Studies

LABS 5301 and 5302 should be taken early in the student's program of study. They will introduce students to the main questions and the critical literature in the respective field. As a requirement for each course, students will be expected to write a paper reviewing the literature that focuses on their intended area of concentration.

In LABS 5390, students will formulate and discuss their research ideas, cross-fertilizing the study of the border and of Latin America. It will help launch the thesis and serve as a forum for non-thesis students. A capstone course, it should be taken near the end of the student's program of study.

c. Elective courses prescribed for those students;

Each student will take 9-12 hours of courses in a single area to provide disciplinary depth and expertise to complement the breadth of knowledge in the core course concerning the border area and Latin America. These courses will be chosen in consultation with the academic advisor. Field experience under a supervising professor is required when appropriate to the student's needs.

d. Courses freely elected by students

Each student will choose, in consultation with the academic advisor, 6-9 hours of courses to complete the program.

e. Other, specify.

Language Requirement

All students must demonstrate oral, reading, and writing proficiency in Spanish. Substitutions may be made. If proficiency is not adequately demonstrated by sufficient coursework at the undergraduate level, including undergraduate education conducted in Spanish, a proficiency examination in Spanish is required the first semester of enrollment.

Students who do not satisfy the proficiency requirements through this test must register for Spanish instruction until they pass the test.

Students may select up to 6 credit hours from upper-division undergraduate courses, as approved by the graduate committee. The instructor is expected to assign the student appropriate work for graduate level credit.

Students may elect either the thesis or non-thesis option. In the capstone course, LABS 5390, students will be encouraged to incorporate field experience. Students will also be encouraged to undertake other field experiences that may be part of the program in consultation with the program advisor.

Transfer students will be admitted based on the graduate school guidelines. No more than 9 hours of transfer credit will be accepted.

For Graduate Students Only

The following are the core (LABS) and departmental courses approved for the programs. Additional courses may be approved by the Graduate Advisor.

Latin American and Border Studies (LABS)

5301 Issues in Border Studies (3-0)

An analysis of selected aspects of the culture, society, politics, government, environment, and economy of the U.S.-Mexico border region. An interdisciplinary academic experience will be conducted through reading and an exploration of data sets available on the region. Students will become familiarized with interaction patterns between Northern Mexico and the U.S. Southwest.

5302 Issues in Latin American Studies (3-0)

The course will acquaint students with key dynamics and problems in contemporary Latin America. It examines the historic roots and possible outcomes of these trends, including social structures and institutions, such as government, religion, family, education, stratification, urban and rural development, economics, and migration.

5390 Research in Latin American and Border Issues (3-0)

A seminar designed to teach research methodology, emphasizing the integration of techniques of different disciplines, based on the study of a specific theme germane to the study of Latin American and/or the U.S.-Mexico border region. Research and writing of a substantial paper on a special topic is required.

5398 Thesis (0-0-3)

Initial work on the Thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the Thesis continues. Prerequisite: LABS 5398.

Art History (ARTH)

For Undergraduate and Graduate Students

The following undergraduate courses have been approved for graduate credit.

4309 Research Problems in Art History**4319 Special Problems in Art History****5309 The Art and Civilization of Ancient Mexico-The Maya (3-0)**

This course surveys the art and civilization of the Maya, the Aztecs, and their predecessors from 1800 BC to the present. In addition to large scale art and architecture, the invention of writing, funerary ceramics, and art as both religious and political expression will be examined.

5310 The Border and Visual Culture (3-0)

The class explores the history of art and its role in the civilization of the El Paso/Northern Chihuahua region, from Hueco Tanks to the rise of Modernism and the mural renaissance. Using the rich artistic legacy of this area, the class examines the way art functions across borders and how borders have been constructed, debated, and lived through in the art of the past.

Economics (ECON)**5366 Latin American Economics (3-0)**

A study of the existing economic institutions in Latin America. Application of economic principles to Latin America economic problems and policy. The emphasis is institutional rather than analytical. *Prerequisite:* ECON 3302 or ECON 3512 or department approval.

History (HIST)**5309 Studies in Latin American History (3-0)**

The survey of a major topic or period in Latin American history, with special emphasis on reading and discussion of significant historiographical interpretations. Typical topics include the Indian in Mexican history, the history of underdevelopment in Latin America, and women and the family in Latin America. May be repeated for credit when topic varies.

5377 Seminar in Latin American and Border History (3-0)

Focuses in depth on theme, movement, or period of significance in Latin American or Border history. Areas from which topics have been chosen in the past include all aspects and time periods of Mexican history, nineteenth and twentieth-century problems in other Latin American countries, Central American history, and major aspects of the U.S.-Mexican border experience. May be repeated for credit when topic varies.

Spanish (SPAN)**Spanish American Literature****5311 Indigenous and Colonial Literature of Spanish America (3-0)**

Readings in Spanish translations of important works of the Mayan, Nahuatl, and Incan cultures. Includes selected works of Hispanic discoverers, conquistadors, and literati from 1492 through the eighteenth century.

5314 Nineteenth Century Spanish-American Literature (3-0)

A study of major Spanish-American works of the nineteenth century exclusive of Modernism; notably, Neoclassic and Romantic poetry, Romantic and Realist narrative, and Gauchesque poetry.

5315 Premodernist and Modernist Poetry (3-0)

Readings in the works of major Spanish poets of the nineteenth and early twentieth century, with special emphasis placed upon Ruben Dario and his school.

5317 Postmodernist and Contemporary Poetry (3-0)

Readings in the works of major Spanish-American poets from approximately 1910 to the present.

5319 Spanish-American Short Story (3-0)

Development of the short story form in Spanish America from its origin in the nineteenth century to the present.

5321 Twentieth Century Spanish-American Novel (3-0)

Readings from selected works of contemporary Spanish-American novelists.

Political Science (POLS)

5334 Seminar in the Politics of Developing Countries (3-0)

Focuses on the politics and economics of developing nations in a global context. May be repeated for credit when topic varies.

5336 Seminar in Southwestern Border Politics (3-0)

United States-Mexico relations as they affect the international frontier, with emphasis upon political leadership, ethnicity, and institutions.

5337 Seminar in Latin American Politics (3-0)

A study of the political systems of Latin America. Offerings of the course may focus upon one country, regions, or all of Latin America.

6303 Seminar in Cultural, Linguistic, and Political Borders (3-0)

This seminar provides an interdisciplinary immersion into cultural, linguistic, and political issues in the U.S.-Mexico border region, their policy implications, and the challenges posed to policy solutions amid political-administrative divisions. Course participants will be expected to work as teams in problem-solving experiences designed to go beyond the readings and classroom to utilize the border context. *Prerequisites:* EDAD 6301, EDAD 6302, EDAD 6303, EDAD 6304 each with a grade of "C" or better and department approval.

Sociology (SOCI)

5355 U.S.-Mexico Borderlands in Change (3-0)

The study of social, economic, and technological change in the Borderlands. Transborder networks and nationalistic policies are compared; the border maquiladora industry is studied.

5375 Seminar in Southwestern Cultures (3-0)

An anthropological, ethnohistorical, and sociological examination of salient Southwestern cultures: Mexican-Americans, Indian societies, Blacks, Orientals, etc.

Geological Sciences (GEOL)

5397 Geology and Mineral Resources of Mexico (3-0)

Stratigraphic and structural framework of the Republic of Mexico with particular reference to the distribution of mineral resources. Field excursion required. *Prerequisite:* Graduate standing.



Music

301M Fox Fine Arts
(915) 747-5606
music@utep.edu

CHAIRPERSON: Lowell Graham

PROFESSOR EMERITUS: Amyl Paul

GRADUATE FACULTY: Colgin, Dousa, Eylon, Fountain, Gibson, Graham, Haddad, Hufstader, Jones, Leinberger, Macchioni, McMillan, Ross, Schweigart, Siqueiros, Tredway, Trimble, White, Wilkinson, E. Wilson, S. Wilson

Master of Music

The Master of Music degree is offered in two majors: Performance (instrumental, vocal, conducting, theory or composition), which specializes in the study of a performing medium; and Music Education, which is designed for advanced training in the teaching profession.

Specific Requirements for the Master of Music in Performance

1. A Bachelor's degree in Music or its equivalent
2. Acceptance into the performance program via
 - a. audition with a three-person panel of area faculty
 - b. vocal majors must demonstrate knowledge of Italian, French, German, Latin, and English diction
 - c. submission of undergraduate official transcript
 - d. two letters of recommendation
 - e. written statement of intent
3. Completion of the following required courses with a "B" or above:

Instrumental:

| | | | |
|----------------|---|------|----------------------------------|
| 9 hours | MUSA | 5391 | Applied Music |
| 3 hours | MJSL | 5371 | Bibliography and Research |
| 3 hours | MJSE | 5397 | Pedagogy of Instrumental Music |
| 2 hours | MJSL | 5211 | Selected Topics in Music History |
| 2 hours | MJST | 5217 | Selected Topics in Music Theory |
| 3 hours | MJST | 5321 | or Analysis of Tonal Music |
| 3 hours | MJST | 5322 | or Analysis of Modern Music |
| 2 hours | Ensemble or Chamber Music Participation | | |
| 3 hours | MJSG | 5398 | Thesis |
| 3 hours | MJSG | 5399 | Thesis |
| <u>5 hours</u> | Electives (Approved upper-division undergraduate or graduate courses) | | |
| 32-33 hours | Total | | |

Vocal:

| | | | |
|----------------|---|------|----------------------------------|
| 9 hours | MUSA | 5391 | Applied Lessons |
| 3 hours | MJSL | 5371 | Bibliography and Research |
| 3 hours | MJSE | 5396 | Pedagogy of Vocal Music |
| 2 hours | MJSL | 5211 | Selected Topics in Music History |
| 2 hours | MJST | 5217 | Selected Topics in Music Theory |
| 3 hours | MJST | 5321 | or Analysis of Tonal Music |
| 3 hours | MJST | 5322 | or Analysis of Modern Music |
| 2 hours | Ensemble or Chamber Music Participation | | |
| 3 hours | MJSG | 5398 | Thesis |
| 3 hours | MJSG | 5399 | Thesis |
| <u>5 hours</u> | Electives (Approved upper-division undergraduate or graduate courses) | | |
| 32-33 hours | Total | | |

Conducting:

| | | | |
|---------|------|------|-----------------|
| 9 hours | MUSA | 5391 | Applied Lessons |
|---------|------|------|-----------------|

3 hours MUSL 5371 Bibliography and Research
 2 hours MJSA 5233 Graduate Score Study
 2 hours MJSA 5234 Graduate Rehearsal Techniques
 2 hours MUSL 5211 Selected Topics in Music History
 2 hours MJST 5217 Selected Topics in Music Theory
 3 hours MJST 5321 **or** Analysis of Tonal Music
 3 hours MJST 5322 **or** Analysis of Modern Music
 2 hours Ensemble or Chamber Music Participation
 3 hours MUSG 5398 Thesis
 3 hours MUSG 5399 Thesis
4 hours Electives (Approved upper-division undergraduate or graduate courses)
 32-32 hours Total

Theory:

4 hours MJSA 5281 Applied Lessons
 3 hours MUSL 5371 Bibliography and Research
 3 hours MUSL 5319 Pedagogy of Theory
 3 hours MJST 5321 Analysis of Tonal Music
 3 hours MJST 5322 Analysis of Modern Music
 2 hours MUSL 5211 Selected Topics in Music History
 2 hours MJST 5217 Selected Topics in Music Theory
 2 hours Ensemble or Chamber Music Participation
 3 hours MUSG 5398 Thesis
 3 hours MUSG 5399 Thesis
4 hours Electives (Approved upper-division undergraduate or graduate courses)
 32 hours Total

Composition:

9 hours MJSA 5325 Graduate Composition
 3 hours MUSL 5371 Bibliography and Research
 3 hours MUSL 5319 Pedagogy of Theory
 3 hours MJST 5321 Analysis of Tonal Music
 3 hours MJST 5322 Analysis of Modern Music
 2 hours MJST 5217 Selected Topics in Music Theory
 2 hours Ensemble or Chamber Music Participation
 3 hours MUSG 5398 Thesis
 3 hours MUSG 5399 Thesis
2 hours Electives (Approved upper-division undergraduate or graduate courses)
 32-33 hours Total

The thesis sequence includes either 1) a Master's recital and a written thesis documenting that recital **or** 2) two performance recitals. A final oral examination on the thesis is also required. All graduate recitals must be attended by three graduate music faculty, two of which must be from the student's applied area. The attending graduate faculty will judge the recital as "pass/fail" as part of the degree requirements.

Specific Requirements for the Master of Music in Music Education: Thesis Track

1. A Bachelor's degree in Music or its equivalent with certification to teach music in the public schools or significant and equivalent professional teaching experience.
2. Acceptance into the music education program via
 - a. the approval of a three-person panel of area faculty after appropriate interviews and/or teaching demonstration
 - b. submission of undergraduate official transcript
 - c. two letters of recommendation
 - d. written philosophy of teaching
3. Completion of the following required courses with a "B" or above:
 - 3 hours MUSE 5331 Foundations in Music Education
 - 3 hours MUSL 5371 Bibliography and Research
 - 4 hours MJSA 5281 Applied Lessons

- MUSA 5261 or Applied Lessons
- MUSA 5381 or Applied Lessons
- 3 hours MUSE 5396 Pedagogy of Vocal Music,
MUSE 5397 or Pedagogy of Instrumental Music
- 2 hours MUST 5217 Selected Topics in Music Theory
- 3 hours MUST 5321 or Analysis of Tonal Music
- 3 hours MUST 5322 or Analysis of Modern Music
- 2 hours MUSL 5211 Music History
- 6 hours MUSG 5335 Seminar in Music Education

3 hours from the following menu:

- TED 5300 Research for the Classroom Teacher
- TED 5301 Learning Contexts and Curriculum
- TED 5302 Managing the Student Centered Classroom
- TED 5303 Authentic Performance Assessment in the Classroom
- EDRS 5305 Education Research and Statistics
- EDAD 5310 Education Administration
- EDAD 5312 Education Instruction

(or approved substitute)

- 3 hours MUSG 5398 Thesis
- 3 hours MUSG 5399 Thesis

32-33 hours Total

No recital is required in this particular Music Education program. This thesis sequence includes the submission of a research thesis on a pedagogical topic. A final oral examination on the thesis is also required.

Non-Thesis Track

1. A Bachelor's degree in Music or its equivalent with certification to teach music in the public schools or significant and equivalent professional teaching experience.
2. Acceptance into the music education program via
 - a. the approval of a three-person panel of area faculty after appropriate interviews and/or teaching demonstration
 - b. submission of undergraduate official transcript
 - c. two letters of recommendation
 - d. written philosophy of teaching

3. Completion of the following required courses with a "B" or above:

- 3 hours MUSE 5331 Foundations of Music Education
- 3 hours MUSL 5371 Bibliography and Research
- 4 hours MUSA 5281 Applied Lessons (on principal or secondary instrument)
MUSA 5261 or Applied Lessons
MUSA 5381 or Applied Lessons
- 3 hours MUSE 5396 Pedagogy of Vocal Music
MUSE 5397 or Pedagogy of Instrumental Music
- 2 hours MUST 5217 Selected Topics in Music Theory
- 3 hours MUST 5321 or Analysis of Tonal Music
- 3 hours MUST 5322 or Analysis of Modern Music
- 2 hours MUSL 5211 Selected Topics in Music History
- 9 hours MUSG 5335 Seminar in Music Education

6 hours from the following menu:

- TED 5300 Research for the Classroom Teacher
- TED 5301 Learning Contexts and Curriculum
- TED 5302 Managing the Student Centered Classroom
- TED 5303 Authentic Performance Assessment in the Classroom
- EDRS 5305 Education Research and Statistics
- EDAD 5310 Education Administration
- EDAD 5312 Education Instruction

(or approved substitute)

32-34 hours Total

No thesis is required in this particular Music Education track. This sequence of classes may be completed in two regular semesters plus two summer semesters of study (2+2). A comprehensive written exam may be required at the conclusion of all coursework.

For Undergraduate and Graduate Students

The following undergraduate courses may be included in the Graduate Programs with permission of the Graduate Advisor.

Languages and Linguistics

Any upper level undergraduate foreign language course.

Dance (DANC)

3343 Character and Jazz Dance

3341 Ballet Techniques

Music Education (MUSE)

3336 Teaching of Music in the Elementary Schools

4333 Teaching of Music in the Junior and Senior High Schools

4335 Selected Problems in Music Education

4395 Piano Pedagogy

Music Theory (MUST)

3215 Analytical Process in Music

3216 Theory Seminar

3218 Composing and Arranging for Instruments and Voice

3315 Advanced Electronic Music

3316 Commercial Music Composition

3317 Applied Audio Production

3319 Advanced Composition

3341 Introduction to Recording

Theatre (THEA)

3355 The Musical Theatre

For Graduate Students Only

Applied Music (MUSA)

5233 Graduate Score Study (3-0)

A study of how to analyze scores from a conductor's viewpoint. *Prerequisite:* Department approval.

5234 Graduate Rehearsal Techniques (3-0)

A study of how to prepare and conduct rehearsal at various stages of preparation for performance. *Prerequisite:* Department approval.

5261 Applied Lessons (0-0-2)

Used by non-performance majors to develop playing skills on a new secondary instrument.

5281 Applied Lessons (0-0-2)

5381 Applied Lessons (0-0-3)

These "81" courses can be used as: 1) a secondary applied area; 2) the principal applied area for a non-performance major; or 3) an elective by graduate students in fields other than music. For Music Education candidates, Applied Lessons in conducting may be considered for credit toward completion of the Music Education Block. *Prerequisite:* Admission requires successfully completed audition for appropriate applied faculty professor. Music course fee required.

5361 Applied Lessons (0-0-3)

Used by Music Education majors to develop playing skills on a new secondary instrument.

5391 Applied Lessons (0-0-3)

For performance majors. Requires acceptance into degree program by a two or more person committee of area faculty. Music course fee required.

Music Education (MUSE)

5331 Foundations in Music Education (3-0)

Educational research in the elementary and secondary school fields. Students may conduct research on a problem of their own selection in a field of major interest. May be repeated for credit. *Prerequisites:* Twelve semester hours of advanced courses in Music and a bachelor's degree.

5396 Pedagogy of Vocal Music (0-0-3)

A study of pedagogical materials and methods for use in teaching vocal music at various instructional levels.

5397 Pedagogy of Instrumental Music (0-0-3)

A study of pedagogical materials and methods for use in teaching instrumental music at various instructional levels.

Music, General (MUSG)

5335 Special Topics in Music (0-0-3)

Rotating special topics seminar including such topics as Evaluation in Music Education, Music Administration, Behavior Modification in Music, Applications of Music Technology. Topics can include all areas of music. May be repeated for credit. *Prerequisites:* Twelve semester hours of advanced courses in Music and a bachelor's degree.

5336 Independent Study (0-0-3)

Independent academic study for students in the Master of Music Degree Program.

5398 Thesis (0-0-3)

Initial work on the thesis or recital. This class is the first section of the two semester required sequence and is given a grade of "I" (In Progress) until the subsequent course, submitted document and recital(s) are completed.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis/recital(s) is completed.

Prerequisite: MUSG 5398.

Music Literature and History (MUSL)

5211 Selected Topics in Music History (0-0-2)

Study of specialized topics in Music History. Courses in the sequence must be approved by the Music History Coordinator.

5314 Music History Survey (3-0)

Music history survey from Middle Ages to twentieth century. Emphasis on stylistic identification of scores and performances. Will not count for Master of Music degree.

5371 Bibliography and Research (3-0)

A study of research methods and materials designed to equip the student for scholarly research. Includes research project.

Music Theory (MUST)

5217 Selected Topics in Music Theory (2-0)

Study of specialized topics in Music Theory. Courses in the sequence must be approved by the Music Theory Coordinator.

5313 Survey of Music Theory (3-0)

Theory of the common practice period in western music. Includes figured bass realization, soprano harmonization, ear training, harmonic analysis, and form. Will not count for Master of Music degree.

5319 Pedagogy of Music Theory (3-0)

A study of pedagogical materials and methods for use in teaching music theory at various instructional levels. *Prerequisite:* Department approval.

5321 Analysis of Tonal Music (3-0)

A three hour course for advanced theory and composition students, focusing on analysis of common practice forms with emphasis on chromatic harmony and modulation. *Prerequisite:* Department approval.

5322 Analysis of Modern Music (3-0)

A three hour course for advanced theory and composition students, focusing on analysis of works which represent styles unique to the twentieth and twenty-first centuries, including atonality, neoclassicism, impressionism, minimalism, film music and more. *Prerequisite:* Department approval.

5325 Graduate Composition (0-0-3)

Applied composition lessons for advanced theory and composition students for weekly independent study. Requires acceptance into the degree program by a two or more person committee of area or other music faculty. *Prerequisite:* Department approval.





Philosophy

113 Hudspeth Hall
(915) 747-6617
philos@utep.edu

INTERIM CHAIRPERSON: John Haddox
GRADUATE FACULTY: Best, Ferret, Haddox, Simon, Springer, Symons

The Philosophy Department does not offer a graduate-level degree, but it regularly offers graduate courses that may be used towards graduate degrees in other disciplines.

Philosophy (PHIL)

5351 World Historical Philosophers (3-0)

A detailed study of the life, writings, and influence of one or a few selected philosophers. Usually Plato, Aristotle, Kant, and Hegel are treated in a sequence of offerings of this course. May be repeated when the course content varies.

5352 Basic Philosophical Issues (3-0)

Contemporary philosophical theories of perception and cognition, philosophical anthropology, the technological society, and new religious sensibilities have been topics.

5353 Independent Study (0-0-3)

Student research under supervision of the faculty. *Prerequisite:* Instructor approval.

5354 Topics in Philosophy of History (3-0)

Topics will include matters such as the debate between idealist and materialist interpretations of history, the question of historical "laws" and determinism, the debate over "progress" in history, and the relation between the social and natural sciences.

5355 Topics in Philosophy of Education (3-0)

Analyzes classical and contemporary theories and practices of education in a global perspective, using mainstream, alternative, and critical approaches. Key readings could include selections from Plato, Rousseau, Dewey, and Goodlad. *Prerequisite:* One upper-level undergraduate Philosophy course or permission of instructor.

5356 Topics in Philosophy of Science (3-0)

An examination of selected issues and themes in the philosophy of the natural sciences. While topics will vary according to the interests of the instructor, they will be drawn from ongoing debates in contemporary philosophy of science including, but not limited to, causality, confirmation, the relation between theory and observation, the demarcation between science and anti-science, feminist and post modernist critiques of scientific rationality, the realist/anti-realist debate, progress, and the ethical implications of science and technology. This course may be repeated for credit with different instructors. *Prerequisite:* 1 Undergraduate Philosophy Course or permission of instructor.

5359 Philosophy and Psychology (3-0)

This course will provide students with an understanding of the basic tenets of the major traditions in psychology and will engage in critical evaluation of their fundamental assumptions and methods. While the emphasis of the course will vary depending on the instructor, major attention will be given to the establishment of the information processing tradition in cognitive psychology, especially the role of representation, belief, desire and the like as explanatory posits and their relation to underlying neural activity.

Prerequisites: 1 Undergraduate Philosophy Course, Philosophy of Science, Modern Philosophy, or 1 or more courses in Psychology and department approval.







Political Science

111 Benedict Hall
(915) 747-5227
rsegura@utep.edu

CHAIRPERSON: Gregory Schmidt
PROFESSORS EMERITI: C. Richard Bath, Howard D. Neighbor, Roberto E. Villarreal
ASSOCIATE PROFESSOR EMERITUS: Thomas J. Price
GRADUATE FACULTY: Boehmer, Coronado, Genna, Graves, Hiroi, Kruszewski, Payan, Rocha, Schmidt, Staudt, Weaver, Webking

Master of Arts in Political Science

Basic Requirements for Admission to the MA Program

1. Bachelor's degree from an accredited college or university with a degree in Political Science or a related area
2. Letters of recommendation and statement of purpose
3. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework
4. Other evidence of background and experience that may be available

Specific Requirements for the MA Degree

The Master of Arts in Political Science requires the successful completion of 30 semester hours: 24 hours of course work and 6 hours for the thesis. There must be a minimum of 21 hours, including POLS 5398 and POLS 5399, of graduate-level courses. Independent studies are limited to three hours, with the permission of the instructor and graduate advisor, and must be justified with a proposal from the student outlining the objectives of the project.

The MA Degree Plan shall include:

1. Research Preparation (6 hours)
 - POLS 5300 Research Methods in Political Science (To be taken the first semester after admission.)
 - POLS 5301 Seminar in Qualitative Methods **or**
 - POLS 5302 Seminar in Quantitative Research Methods II
 2. Graduate courses in political science from the 3 subfields or general section, with a minimum of at least 1 course in each subfield: (18 hours)
 - American Institutions and Processes
 - Comparative Politics
 - International Politics
 3. One three hour elective graduate course may be taken from a related field outside the department with the advice of the Graduate Advisor.
 4. Two Thesis courses: (6 hours)
 - POLS 5398 Thesis
 - POLS 5399 Thesis
- Total Hours: 30**

Registration

No student may be registered as a graduate student of the Department of Political Science without the advice of, and signed approval of his/her program by, the Graduate Advisor for MA students. This applies not only to the initial registration, but also to all subsequent enrollments.

Satisfactory Performance

Satisfactory performance in all graduate programs of the Department of Political Science is defined as maintaining a 3.0 GPA. A student in any of these programs receiving a grade of "C" or lower in two courses taken for graduate credit will be dismissed from the graduate program.

Political Science (POLS)

For Graduate Students Only

American Institutions and Processes

5310 Seminar in American Political Behavior (3-0)

The study of the theories and research about how and why people act politically. Areas of study include: political participation, gender, public opinion, political communication, and race and ethnicity. Course content will vary based on which area of study is highlighted.

5315 Seminar in American Institutions and Processes (3-2)

This course is designed to study the various theories and research about the executive, legislative and judicial branches of government in the United States. Course content will vary based on which branch of government is highlighted.

5320 Seminar in Public Law (3-0)

Covers a wide range of substantive and/or procedural topics in public law and/or the sociological analysis of the function of law.

5364 Seminar in Public Policy Analysis (3-0)

The study of the politics of the policy making process. Emphasis is on the actors involved in public policy-making, their interactions, and the outputs of the policy process.

Comparative Politics

5334 Seminar in Comparative Political Development (3-0)

The comparative analysis of socioeconomic development, regime transitions, and political culture. Topics may include democratization political economy, social movements, ethnic conflict, gender politics, civil society, and corruption.

5336 Seminar in Southwestern Border Politics (3-0)

United States-Mexico relations as they affect the international frontier, with emphasis upon political leadership, ethnicity, and institutions.

5339 Seminar in Comparative Political Institutions (3-0)

The comparative analysis of political institutions, such as electoral systems, party systems, legislatures, judiciaries, parliamentary vs. presidential systems, cross-border institutions, system of interest representation, and intergovernmental relations.

5343 Seminar in Border Politics (3-0)

Comparative study of selected international borders in their multifaceted transnational, local, regional, and national complexities.

5344 Seminar in Border Theory (3-0)

Course examines theoretical explanations for the political behavior and events on international borders from a comparative perspective. Special attention is paid to explaining border politics and various issues including bilateral cooperation, geopolitics, territoriality, culture, demographic migrations, and economic flows across borders.

6303 Seminar in Cultural, Linguistic, and Political Borders (3-0)

This seminar provides an interdisciplinary immersion into cultural, linguistic, and political issues in the U.S.-Mexico border region, their policy implications, and the challenges posed to policy solutions amid political-administrative divisions. Course participants will be expected to work as teams in problem-solving experiences designed to go beyond the readings and classroom to make use of the border context. *Prerequisites:* EDAD 6301, EDAD 6302, EDAD 6303, EDAD 6304, and/or department approval.

International Politics

5330 Seminar in International Politics (3-0)

Examines the structures and the interactions that characterize the politics of the international system. Attention is paid to various theoretical perspectives of international relations scholarship and other topics of world politics.

5331 Seminar in International Organization and International Law (3-0)

Focuses on the creation and operation of international organizations, both state and non-state based, and on the continuing evolution of international law. May be repeated for credit when the topic varies.

5332 Seminar in Foreign Policy Decision Making (3-0)

Examines in detail the process of decision making within individual international actors and the cumulative effects of such decisions.

5338 Seminar in International Political Economy (3-0)

Examines the political and economic effects of the interaction of national policies in the global economy, with special attention paid to theory, evidence, and national policies. Topics include: trade policies, monetary policies, financial crises, multinational corporations, intergovernmental economic organizations and treaties, free trade areas, and other issues of economic development.

General

5300 Seminar in Quantitative Research Methods (3-0)

Basic introduction to principles of scientific inquiry, research design, and quantitative methodological techniques used in political analysis. Required of all graduate Political Science majors. The seminar must be taken during the first semester of graduate study.

5301 Seminar in Qualitative Research Methods (3-0)

The study of qualitative research methods, including case studies and the comparable cases strategy. Issues and themes used to illustrate these methods will vary according to the instructor's interests. *Prerequisite:* POLS 5300 or equivalent course, with a minimum of "B" or better.

5302 Seminar Quantitative Research Methods II (3-0)

This course further explores methods of quantitative analysis and hypothesis testing, including data management, various regression estimation methods, diagnostic techniques, and other topics. *Prerequisite:* POLS 5300 or equivalent course, with a minimum of "B" or better.

5349 Seminar in Political Thought (3-0)

This course investigates topics of political thought ranging from ancient to modern/contemporary time periods. The subject matter will vary according to the instructor's choice but will familiarize students with relevant literature and contemporary scholarly discussions of political thought.

5380 Selected Problems in Government (3-0)

Independent study, research, and writing on a topic agreed upon by student and professor.

5398 Thesis (0-0-3)

As part of this course, the student will successfully prepare and defend a prospectus for the MA thesis. The prospectus must be approved by the student's thesis committee, and failure to meet this requirement within two long semesters will preclude continuation of the student in the MA program. *Prerequisite:* Instructor approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisites:* POLS 5398 and instructor approval.





Psychology

112 Psychology Building
(915) 747-5551
psychology@utep.edu

CHAIRPERSON: Edward Castañeda

PROFESSORS EMERITI: Edmund Coleman, James V. Devine, Judith P. Goggin, Philip Himmelstein, Randolph H. Whitworth

ASSOCIATE PROFESSOR EMERITUS: Guido A. Barrientos

GRADUATE FACULTY: Castañeda, Cohn, Cooper, Crites, Francis, Hosch, Lucker, Malpass, Meissner, Morera, Mbss, O'Dell, Schwartz, Wiebe, Wood, Zárate

The University of Texas at El Paso's location on the U.S./Mexico border provides a unique opportunity to investigate how an intersection of nationalities, cultures, and languages affects cognitive processes and behaviors. These issues permeate nearly all of our academic and scholarly activities including classroom instruction, research, and community placements. The psychology department offers a variety of graduate programs and concentrations so students can tailor their graduate studies in preparation for their future career goals. We offer a Ph.D. in general psychology and provide three areas of concentration for students: Health; Legal; and Social, Cognitive and Neurosciences. The objective of the Ph.D. program is to prepare students for research careers in either academic or applied settings. We also offer two MA programs: one in Clinical Psychology that prepares students to either work in applied settings as a psychological associate or continue on to a Clinical Ph.D. program and one in General Experimental Psychology that prepares students to continue on to a Ph.D. program.

General Requirements for Graduate Programs in Psychology

Admissions Requirements

Because all of our graduate programs focus on research and require extensive one-on-one contact between faculty and students, we can accept only a limited number of students each year. Admission is competitive, and admission recommendations are made by a committee that carefully reviews each applicant's academic history, performance, and interests. To be admitted, one must have a bachelor's degree (or the equivalent for non-U.S. students) from an accredited university. Students who are still working on their bachelor's degree and who will complete it before starting graduate work are given full consideration. Individuals who do not have a degree in psychology are also given full consideration, but admission may be conditional on satisfactorily completing a few undergraduate psychology courses.

We accept students once a year. New students are admitted to begin during the fall semester only. Applications for admission are due January 15th. If you are interested in applying, please send the materials indicated below to the graduate school (UTEP Graduate School; Administration Building Room 223, 601 W. Schuster, El Paso, TX 79968).

- A UTEP graduate school application (an on-line application can be found at the graduate school's page)
- Transcripts according to the requirements of the Graduate School.
- Official GRE General Test scores from ETS (GRE scores taken within the last five years are required of all applicants, regardless of whether or not they have a graduate degree in another discipline)
- A two- to three-page personal statement outlining experiences, skill, and training. In addition, please state your career goals and how this specific program will benefit your professional development
- Three letters of recommendation
- Official TOEFL scores for international students who do not have a degree at an accredited U.S., institution

Before being admitted into any graduate program, either MA or Ph.D., the applicant's undergraduate preparation must include a course in psychological statistics and 12 hours of upper-division courses in psychology including a course in experimental psychology.

Ph.D. Program

The Ph.D. Program is designed to train all students in the fundamental areas of psychology. The department extends this training with three concentrations in (1) Health, (2) Legal, and (3) Social, Cognitive and Neurosciences. Students with a health concentration have an opportunity to conduct research in areas such as adaptation to chronic illness; food and fluid intake; judgment and decision making; risk taking; smoking prevention and cessation; and underage drinking and driving. Students with a legal concentration have an opportunity to conduct research in areas such as detection of deception; facial recognition and eyewitness identification/memory; interviewing and interrogation; jury decision making; and suggestibility in legal cases. Students with a social, cognitive, and neuroscience concentration have an opportunity to conduct research in areas such as addiction and drugs of abuse; behavioral regulation; bilingual memory; multilingual language processing; social neuroscience; and social perception, prejudice and stereotyping. Ph.D. candidates are required to complete 78 semester hours.

Course Requirements

1) Statistics and research methods courses (12 semester hours)

PSYC 5310 Applied Correlation and Regression Methods

PSYC 5311 Experimental Design and Analysis of Variance

PSYC 5334 Foundations of Research

Plus one additional research method course approved by graduate program director.

2) Breadth courses include three of the following (9 semester hours)

PSYC 5371 Animal Learning and Behavior

PSYC 5372 Behavioral Neuroscience

PSYC 5374 Cognitive Psychology

PSYC 5376 Developmental Psychology

PSYC 5330 Social Behavior

3) Research (24 semester hours)

a. First Year Research (6 semester hours)

PSYC 6310 First Year Research

PSYC 6311 First Year Research

b. Research Applications (6 semester hours)

PSYC 5301 Research Applications

c. Thesis Research (6 semester hours)

PSYC 5398 Thesis

PSYC 5399 Thesis

d. Dissertation Research (6 semester hours)

PSYC 6320 Dissertation

PSYC 6321 Dissertation

Research must be taken with at least 2 different faculty members.

4) Concentration Courses and Electives

a. Health

PSYC 5323 Psychometrics

PSYC 5351 Behavioral Medicine

PSYC 5352 Public Health and Community Interventions

Plus 24 additional semester hours of approved Health elective coursework

(A list of approved elective coursework can be obtained from the graduate program director.)

b. Legal

PSYC 5344 Survey of Legal Psychology

PSYC 5342 Special Topics in Psychology and Law

PSYC 5342 Special Topics in Psychology and Law

PSYC 6305 Field Placement

PSYC 6305 Field Placement

Plus 9 additional semester hours of approved Legal elective coursework (A list of approved elective coursework can be obtained from the graduate program director.)

c. Social, Cognitive, and Neurosciences

BIOL 5131 Ethical, Social, and Political Dimensions of Science

Plus 12 additional semester hours of approved Social, Cognitive, and Neurosciences elective coursework (A list of approved elective coursework can be obtained from the graduate program director.)

Yearly Evaluations and Satisfactory Progress

Students are expected to make satisfactory progress toward their degree. Faculty will provide all students with annual, written evaluations and feedback. Failure to make satisfactory progress toward one's degree may result in dismissal from the program.

Advancement to Candidacy

Students must apply for advancement to candidacy. This can be done once students complete (1) statistics and research method courses, (2) breadth courses, (3) first year research, and (4) thesis research requirements.

Maximum Time for Completion of the Ph.D. Degree

Students in the Ph.D. program in Psychology must complete all requirements for a Ph.D. within one eight-year period. The eight-year period begins with the term of the first course listed on the student's degree plan. Use of advanced standing will proportionately decrease this time.

Ph.D. Oral Examinations

A dissertation proposal must be defended orally before the student's committee prior to collecting data. In addition, students must make a public presentation of their dissertation and successfully defend their dissertation during a final oral examination conducted by the dissertation committee. The final oral examination may include committee examination on any appropriate material.

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

MA Programs

The department offers two programs leading to terminal MA Degree: Clinical Psychology and General Experimental Psychology. Both MA degrees are research-focused and require theses. The Clinical MA program is designed to prepare students to either work in applied settings as a psychological associate or continue on to a Clinical Ph.D. program. The General Experimental MA program is designed to prepare students to continue on to a Ph.D. program.

In both the Clinical and General Experimental MA programs,

- 1) students must orally defend their thesis before a thesis committee
- 2) all requirements must be completed within six years of entering the program
- 3) no more than 6 credit hours of approved upper-division undergraduate courses may count for graduate credit.

The MA in Clinical Psychology requires the completion of 45 credit hours; including 21 hours of required course work, 15 hours of elective coursework, 3 hours of internship, and 6 hours of theses. The required courses for a Clinical MA degree are:

- PSYC 5310 Applied Correlation and Regression
- PSYC 5311 Experimental Design and Analysis of Variance
- PSYC 5309 Psychopathology
- PSYC 5321 Seminar in Personality Assessment
- PSYC 5322 Theories and Methods of Psychotherapy
- PSYC 5323 Psychometrics
- PSYC 5333 Seminar in Intellectual and Neuropsychological Assessment
- PSYC 5360 Clinical Internship

Two of the following five courses, taken within the first 3 semesters after being admitted to the Clinical MA program (6 semester hours)

- PSYC 5371 Animal Learning and Behavior
- PSYC 5372 Behavioral Neuroscience
- PSYC 5374 Cognitive Psychology
- PSYC 5376 Developmental Psychology
- PSYC 5330 Social Behavior
- PSYC 5398 Thesis
- PSYC 5399 Thesis

The MA in General Experimental Psychology requires the completion of 30 credit hours, including 12 hours of required course work, 12 hours of elective coursework, and 6 hours of thesis. The required courses for a General Experimental MA degree are:

- PSYC 5310 Applied Correlation and Regression
- PSYC 5311 Experimental Design and Analysis of Variance

Two of the following five courses (6 semester hours)

- PSYC 5371 Animal Learning and Behavior
- PSYC 5372 Behavioral Neuroscience
- PSYC 5374 Cognitive Psychology
- PSYC 5376 Developmental Psychology
- PSYC 5330 Social Behavior
- PSYC 5398 Thesis
- PSYC 5399 Thesis

Departmental Academic Standards

In addition to the University requirement that all students admitted into graduate programs must maintain an overall cumulative GPA of 3.0 or better in all upper-division and graduate courses, the Department of Psychology requires in all graduate programs students who attempt a course or courses and receive two grades of "C" or lower in Psychology courses be dismissed from the program. Students who earn a grade of "C" or lower in a course must retake the course the next time it is offered and earn a grade of "B" or better.

Language

The University of Texas at El Paso's location on the U.S./Mexico border provides a nearly unique opportunity to investigate how language use, specifically proficiency in English and/or Spanish, affects cognitive processes. To investigate the importance of English/Spanish proficiency, it is essential that people comprehend and speak both languages. The psychology faculty, therefore, view language as an important and often necessary, methodological tool for conducting research and strongly encourages and promotes proficiency in both languages.

Transfer Students with Graduate Credit

Students accepted into the Ph.D. program with graduate credit from The University of Texas at El Paso (including the Psychology Department) or from another university must satisfy the same requirements as those beginning their Ph.D. graduate training in Psychology at UTEP without previously earned graduate credits. The student may petition the Graduate Program Committee to accept a maximum of 24 hours of graduate credit (excluding thesis hours) completed at UTEP or another institution. Approved credits will appear as Advanced Standing Credit on the Preliminary Plan of Study. Students who have taken PSYC 5301 (Research Applications) from UTEP prior to admission to the Ph.D. program may request that a maximum of 3 credit hours for this course be included in the 24 hours that may be counted toward their Ph.D. degree as long as those hours were not used to meet requirements for a previous or separate degree.

The student must make a written request for Advanced Standing Credit to the Graduate Program Director. It is the student's responsibility to provide all evidence and material necessary for the Graduate Program Director to review the request. Advanced Standing Credits are subject to final approval from the Graduate School. Transfer students can only be considered for advancement to candidacy after they complete 2 academic semesters and all relevant requirements.

Psychology (PSYC)

For Graduate Students Only

Supervised research in designated laboratories. Students may repeat course for credit. *Prerequisite:* Instructor approval. Psychology Research Course fee required.

5306 Attitudes and Attitude Measurement (3-0)

Considers issues relevant to psychological construct assessment, including attitudes, emotion, culture, and personality.

5309 Seminar in Psychopathology (3-0)

An examination of the research related to problems in etiology, diagnosis, and prognosis of the major disorders.

5310 Applied Correlation and Regression Methods (3-0)

Reviews correlation techniques, simple and multiple regression, mediated and moderated regression, and several multivariate techniques. Applications of these techniques in psychological research in field settings are discussed. *Prerequisite:* PSYC 4317 or equivalent.

5311 Experimental Design and Analysis of Variance(3-0)

Consideration of problems of analysis and design commonly encountered in psychological research. *Prerequisite:* PSYC 4317, or equivalent.

5312 Program Evaluation (3-0)

Examines issues in evaluation research design, implementation, utilization, and ethics. Case studies and class activities provide applied experience.

5315 Psychopharmacology (3-0)

A study of current topics and recent developments in the biochemical basis of psychopathology and related strategies of psychopharmacological intervention.

5321 Seminar in Personality Assessment (3-0)

Introduction to methods and issues in the evaluation of personality and to the projective and objective instruments to assess personality. *Prerequisite:* PSYC 4301 or instructor approval.

5322 Theories and Methods of Psychotherapy (3-0)

An analysis of theory, technique, and research methods used in various current psychotherapies. *Prerequisite:* Instructor approval.

5323 Psychometrics (3-0)

Principles of psychological evaluation, including intellectual, academic, neuropsychological, personality, attitude, and interest measures; reliability and validity; principles, methods, and statistical procedures employed in developing new psychometric instruments, especially with respect to different cultural/ethnic minorities.

5325 Special Topics in Health Psychology (3-0)

Examines relationships among psychological factors and cultural factors, physical health, and subjective well-being. May be repeated for credit when topics vary.

5330 Social Behavior (3-0)

Theoretical and applied approaches to individual and group behavior. Topics include social cognition, attitudes and persuasion, group processes, group decision making, intra- and intergroup relations, person and group perception, and cross-cultural issues related to these social processes. *Prerequisite:* Department approval.

5331 Cross-Cultural Research Methods (3-0)

Consideration of the difficulties confronting causal inference in cross-cultural comparisons. The concept of equivalence is examined as it applies to populations, tests and indicators, and controlled manipulations. The role of theory in developing appropriate research strategies is emphasized. A broad range of research methods are examined for their special contributions and difficulties in cross-cultural comparisons.

5333 Seminar in Intellectual and Neuropsychological Assessment (3-0)

Techniques of intellectual and neuropsychological assessment. Administration of major intellectual and neuropsychological instruments and interpretation and reporting of results. Introduction to neuropathological syndromes. *Prerequisite:* PSYC 4301 or instructor approval. Course fee required.

5334 Foundations of Research (3-0)

Design and implementation of research, including observational methods, experiments and quasi-experimental designs, and program evaluation. Solutions to specific, commonly occurring design and statistical problems are emphasized.

5335 Special Topics in Research Design and Data Analysis (3-0)

An advanced course in data analysis and research design. Topics may include structural equation modeling (exploratory and confirmatory factor analysis, multiple group confirmatory analysis), meta-analysis, or the selection and implementation of an appropriate data analysis plan for a grant or research proposal. *Prerequisites:* PSYC 5310 and PSYC 5311.

5342 Special Topics in Psychology and Law (3-0)

Focuses on selected issues and problems where psychology and culture contribute to and has implications for the legal system and human behavior in relation to the legal system. May be repeated for credit when topic varies.

5344 Survey of Legal Psychology (3-0)

Provides an introduction to the field of Legal Psychology, with an overview of important theoretical and applied issues. Topics may include: Eyewitness identification; juror decision making; memory and suggestibility of witnesses and victims; causes and predictors of violence, domestic violence and child abuse; decision processes in the legal system; expert testimony, and cultural issues.

5351 Behavioral Medicine (3-0)

Behavioral medicine and clinical health psychology are multi- and inter-disciplinary fields in which multiple related professions integrate to promote emotional and physical health and well being. This course will introduce students to key elements of the field, including its research and practice. Foci will include: theoretical models, assessment, differential medical and psychological diagnosis, intervention, and ethics among others. Assignments and class exercises are designed to provide students knowledge and specific tools to collaborate with other professionals, both clinically and for the purposes of research. *Prerequisite:* Department approval.

5352 Public Health and Community Interventions (3-0)

Reviews empirical evidence concerning the efficacy of a range of programs and interventions that are designed to increase health promoting behaviors in various cultures and reduce health threatening and high risk behaviors, such as teen pregnancy, drinking and driving, smoking, and alcohol and drug use. The efficacy of fear appeals, media campaigns, and related interventions will also be addressed. *Prerequisite:* Department approval.

5355 Seminar in General Psychology (3-0)

Advanced study of contemporary problems and issues in selected topics in psychology. May be repeated with different instructors. *Prerequisite:* Department approval.

5360 Clinical Internship (0-0-6)

Supervised experience with clinical techniques in an approved agency. Each 150-clock hours is equivalent to three credit hours. May be repeated until 9 hours are accumulated; however, no more than nine credit hours of PSYC 5360 will count towards the MA degree in Clinical Psychology. Grades in this course will not be used in computing grade point average. Psychology majors only. Pass/Fail grading option. *Prerequisite:* Department approval.

5371 Animal Learning and Behavior (3-0)

Examination of current theories and recent developments in our understanding of the role of learning in modulating animal behavior. A broad range of animal models used to study various Psychological phenomena will be covered with an emphasis on the role of learning and memory processes in these models. *Prerequisite:* Department approval.

5372 Behavioral Neuroscience

Advanced study of the most current information related to neurochemical and neurophysiological mechanisms by which the nervous system controls behavior. Topics will vary but may include examination of normal behaviors such as eating, water balance, sleep, learning, and memory or abnormal behaviors such as mental disorders and drug addiction. Emphasis will be placed on the study and evaluation of current theories of neurochemical mechanisms and neuroanatomical substrates for the behaviors. *Prerequisite:* Department approval.

5374 Cognitive Psychology (3-0)

Examines classic and current findings and methodological approaches to the study of human cognition. Topics may include perception, attention, memory, language, thinking, problem solving, reasoning, and cross-cultural issues. *Prerequisite:* Department approval.

5376 Developmental Psychology (3-0)

In this course students will explore, in depth, life-span development with a focus on cognition and mental processes. Topics will include, but are not limited to, the development of reasoning, language, and the neural bases of cognitive development. Students will critically analyze seminal studies and papers from a variety of disciplines, including experimental psychology, cognitive neuroscience and animal learning and behavior.

5398 Thesis (0-0-3)

Initial work on the thesis. Psychology Research Course fee required.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisite:* PSYC 5398. Psychology Research Course fee required.

For Doctoral Students Only

6305 Field Placement (0-0-3)

Professional experience in an applied setting. Each 150-clock hours is equivalent to three credit hours. The graduate program committee must approve the location and extent of the activity involved.

6310 First Year Research (0-0-3)

Initial work on first year research project. *Prerequisite:* Department approval. Psychology Research course fee required.

6311 First Year Research (0-0-3)

Continuous enrollment required while work on first year research project continues. *Prerequisites:* PSYC 6310 with a grade of "C" or better and department approval. Psychology Research course fee required.

6320 Dissertation (0-0-3)

Initial work on the dissertation. Psychology Research Course fee required.

6321 Dissertation (0-0-3)

Continuous enrollment required while work on dissertation continues. *Prerequisite:* PSYC 6320. Psychology Research Course fee required.



Sociology and Anthropology

109 Old Main
(915) 747-5740
soci@utep.edu

CHAIRPERSON: Josiah Heyman

PROFESSORS EMERITI: Julius Rivera, Ellwyn Stoddard

GRADUATE FACULTY: Campbell, Carmichael, Collins, Curry, Daudistel, Grineski, Heyman, Howard, Lee, Luykx, Morales, Núñez, Rodríguez

The Department offers a Master of Arts degree in Sociology.

Requirements for Admission

1. Admission is based on the entire record of the applicant and availability of departmental resources.
2. Students must submit a completed admissions form to the UTEP graduate school, including references and statement of purpose, as well as transcripts and GRE scores.
3. A bachelor's degree from an accredited U.S. university or proof of equivalent education at a foreign institution. Generally, students should have a 3.0 (B) grade point average, or equivalent, particularly in sociology courses and over the last sixty hours of undergraduate work.
4. Students must submit scores from the graduate record examination (GRE). However, pursuant to section 51.842(b), *Texas Education Code*, an applicant's performance on a standardized test may not be used in the admission or competitive scholarship process for a graduate or professional program as the sole criterion for consideration of an applicant or as the primary criterion to end consideration.
5. The department also grants a limited number of teaching and research assistantships to selected graduate students. Other forms of financial assistance are also available. For further information please contact the graduate advisor.

Official Graduate Record Examination (GRE) scores should be sent directly to Graduate Student Services.

Requirements for the Degree

The following are the requirements of the 30-hour MA in Sociology degree program:

1. Each candidate must take SOCI 5312 (*Advanced Measurement and Inference*), SOCI 5320 (*Quantitative Methods*), SOCI 5322 (*Qualitative Methods*), and SOCI 5328 (*Social Theory*), plus twelve semester hours of sociology or anthropology approved for graduate credit.
2. Each candidate must enroll in at least one semester in SOCI 5398 (Thesis I) and SOCI 5399 (Thesis II) and successfully propose and defend the thesis before a committee while enrolled in SOCI 5399. Each thesis course can only count once toward the total number of hours needed for the degree. Thesis committees consist of at least two departmental representatives and one member from outside the department.
3. Candidates may pursue a minor in anthropology. Candidates taking this option must obtain the consent of the graduate advisor and his/her thesis director, and may take up to 9 hours of anthropology courses from the list of advanced undergraduate courses approved for graduate credit. The plan of anthropology courses must be approved by the graduate advisor and thesis advisor, once assigned. Additional requirements are listed in item 4 below.
4. Undergraduate courses and independent studies approved for graduate credit will count toward the degree only by permission of the graduate advisor and thesis advisor, once assigned. To use an undergraduate course for graduate credit, the following additional work is required: additional reading of original scholarly books and articles above and beyond textbooks; additional written work such as research on specific topics or hypotheses, literature reviews, or identifying research problems in specific areas; and at least five additional meetings with the professor to discuss the added requirements and their completion.
5. Each candidate will submit a suitably bound thesis that must be approved by the candidate's committee and placed on file in the Department and two additional bound copies in the Graduate Student Services.
6. Candidates will be allowed only one grade lower than a "B" in coursework taken for graduate credit. No grade lower than a "B" will be accepted in a required course. Candidates must maintain a minimum 3.0 GPA.

Undergraduate courses that can be taken for graduate credit with extra work to reach graduate level, and with permission of the instructor:

Anthropology (ANTH)

3303 Ecological Anthropology

3304 Biological Anthropology

3306 Cultural Diversity

3308 Anthropology of Law and Political Systems

3309 Mesoamerican Cultures

3310 Southwestern Archaeology

3313 Historical Archaeology of the El Paso-Ciudad Juárez Area

3314 Economic Anthropology

3315 Urban Anthropology

3319 Indigenous Cultures of Latin America

3320 Indigenous Cultures of North America

- 3321 Indians of the Southwest
- 3347 Archaeological Field Methods
- 3357 Sociolinguistics
- 3358 Ethnographic Methods
- 3360 Lab Methods in Archaeology
- 3361 Contemporary Mexican Culture
- 3380 Environmental Policy and Applied Anthropology
- 3647 Archaeological Field Studies
- 4304 Environmental Justice and Minority Communities in the U.S.
- 4306 Colonias on the U.S.-Mexico Border
- 4346 Health and Illness in Cross-Cultural Perspective
- 4365 Museum Fundamentals
- 4370 Studies in Anthropology
- 4380 Theory in Anthropology

Sociology (SOCI)

- 3306 Cultural Diversity
- 3311 Methods of Research
- 3327 Majority/Minority Relations in the United States
- 3333 Juvenile Delinquency
- 3341 Special Undergraduate Topics
- 3348 Criminology
- 3361 Contemporary Mexican Culture
- 3362 Medical Sociology
- 3370 Sociology of Sex Roles
- 3381 Complex Organizations
- 4301 General Sociological Theory
- 4347 Population Analysis and Problems
- 4390 Independent Study

For Graduate Students Only

Sociology (SOCI)

5190 Individual Studies (0-0-1)

Supervised individual study. *Prerequisite:* Department approval.

5290 Individual Studies (0-0-2)

Supervised individual study. *Prerequisite:* Department approval.

5312 Seminar in Advanced Measurement and Inference (3-0)

Introduction to techniques of multivariate analysis commonly used in sociology including multiple regression, logistic regression, regression diagnostics, and non-parametric techniques.

5320 Seminar in Quantitative Methodology (3-0)

Focus on understanding, interpreting, and critically evaluating information obtained from quantitative methods and the sampling procedures these methods employ, including a general overview of relevant social science research methods.

5322 Seminar in Qualitative Methods (3-0)

The field research process from initial proposal to final report, emphasizing participant-observation and in-depth interview methods and the analysis of qualitative materials.

5328 Social Theory (3-0)

An examination of major social theories from the early modern era to the present. The course has four objectives (1) identifying connections between philosophical traditions and social theory; (2) establishing the basic assumptions and arguments of major social theories; (3) examining the linkages between social theories and research approaches; (4) examining the linkages between social theories, social policies, and social practices.

examining the linkages between social theories, social policies, and social practices.

5330 Social Inequality (3-0)

An overview of how sociologists understand and theorize about social inequality; emphasis is on workplace, race, and gender inequalities.

5340 Seminar in Demography (3-0)

Causes and consequences of trends in fertility, mortality, and migration.

5341 Special Graduate Topics (3-0)

A course organized to investigate special topics and current issues of significance to sociologists. May be repeated for credit when content varies.

5348 Seminar in Criminology (3-0)

Social context of criminal law and criminal justice; theories of crime and treatment programs.

5355 U.S.-Mexico Borderlands in Change (3-0)

The study of social, economic, and technological change in the Borderlands. Transborder networks and nationalistic policies are compared; the border maquiladora industry is studied.

5362 Seminar in Health Services Delivery (3-0)

Health and medical occupations and the organization of care, cure, and prevention systems; social and cultural factors affecting sick roles and community health policies and practices.

5365 Seminar in Sociology of Education (3-0)

Application of sociological theory and research to American education; present educational problems and solutions.

5375 Seminar in Southwestern Cultures (3-0)

An anthropological, ethnohistorical, and sociological examination of salient Southwestern cultures: Mexican-Americans, Indian societies, Blacks, Orientals, etc.

5390 Individual Studies (0-0-3)

Prerequisite: Department approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.

Prerequisite: SOCI 5398.





Theatre, Dance, and Film

371 Fox Fine Arts
(915) 747-5146
theatrearts@utep.edu

CHAIR: Joel Murray
PROFESSORS EMERITI: R. Milton Leech
GRADUATE FACULTY: Baker, Gorden, Gladstein, Haines, Murray, Nadel, Redman, Stoughton

The Theatre, Dance, and Film Department offers a Master of Arts in Theatre Arts.

Requirements for Admission

1. Bachelor's degree from an accredited college or university
2. A minimum of 18 approved undergraduate credit hours in Theatre Arts, 12 of which must be approved advanced semester hours (3300, 4300).
3. Submission of official Graduate Record Examination (GRE) scores
4. The following must be submitted to the department: three letters of recommendation, resume, scholarly writing sample, and a letter of application.

Requirements for Degree

1. Each candidate for the MA degree will be required to make a satisfactory score on a comprehensive examination; at the discretion of the department chairperson, a portion of the examination may be a performance or a laboratory demonstration.
2. Majors in Theatre Arts must take a minimum of 24 semester hours in Theatre Arts included in a total of 30 semester hours, of which at least 21 hours must be in courses numbered 5300-5399. Students in Theatre Arts must do either a research thesis or a research/production thesis (available on a limited basis) for which they will receive 6 hours of credit (THEA 5398-THEA 5399: Thesis) toward these minimum requirements.

Theatre Arts (THEA)

For Undergraduate and Graduate Students

These are courses, which may be taken for graduate credit with approval of the graduate advisor. They are to be used to strengthen areas in which the student may be deficient and to enrich the graduate offerings.

3325 Directing I

3335 Chicano Theatre and Drama

3336 Theatre in Spanish

3340 A History of Costume Design

3351 History of the Theatre I

3352 History of the Theatre II

3355 The Musical Theatre

3356 Women in Drama

3313 Acting III or

4313 Acting IV

4318 Playwriting

4340 Selected Topics in Drama and Theatre

For Graduate Students Only

The following Graduate Research Projects courses (5300-5307) are directed by members of the graduate faculty in specific topics of drama and theatre according to the student's interest and need, including such areas as aesthetics, history, critical theory, dramatic literature, design, management, and drama education. A course in this group may be taken a second time when the topic varies.

5300 Graduate Projects in Drama (3-0)

Individual research in Theatre Management.

5301 Graduate Projects in Drama (3-0)

Individual research in Costume and/or Makeup Design.

5302 Graduate Projects in Drama (3-0)

Individual research in History and/or Critical Theory.

5303 Graduate Projects in Drama (3-0)

Individual research in Scene Design and/or Shop Management.

5304 Graduate Projects in Drama (3-0)

Individual research in Lighting and/or Sound Design.

5305 Graduate Projects in Drama (3-0)

Individual research in Directing and Rehearsal Methods.

5306 Graduate Projects in Drama (3-0)

Individual research in the Teaching of Acting.

5307 Graduate Projects in Drama (3-0)

Individual research in Spanish Language Theatre and Drama.

5318 Methods of Graduate Theatre and Drama Research (3-0)

Survey of the essential tools of graduate research and creation in theatre and drama—including bibliography, aesthetics, and creative and scholarly procedure—culminating in the preparation of a scholarly paper. Required of all majors.

5322 Seminar in Theatre Technology (3-0)

Studies of production design and methods of staging in the unfolding pattern of western theatre. Required of all majors.

5323 Seminar in Theatre History (3-0)

The study of the dramatic forms of theatre in selected historical periods. Required of all majors.

5325 Advanced Playwriting (3-0)

Advanced playwriting seeks to familiarize students with contemporary playwrights. In addition, students write a full-length play.

5327 Seminar in Performance: Acting and Directing (3-0)

Study of the strategies of theatrical presentation: the modes, styles, and techniques of acting and directing in a cultural context. Required of all majors.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues.

Prerequisite: THEA 5398.



Women's Studies

233 Liberal Arts
(915) 747-5200
womenstudies@utep.edu
www.utep.edu/womens/

Dr. Guillermina Gina Núñez-Mchiri
Interim Director of Women's and Gender Studies
Associate Professor of Anthropology
Department of Sociology and Anthropology
University of Texas, El Paso
500 W. University Ave., El Paso, TX 79968
915-747-6132

PROFESSORS: Amaya, Armitage, Dailey, Dick, Fitzgerald, Gates, Gladstein, Martin, McGee Deutsch, Mansfield, Nigro, Staudt
ASSOCIATE PROFESSORS: Baker, Byrd, Clark, Coronado, Farah, Hatchett, Howard, Marchino, Rippberger, Smithy, Topp
ASSISTANT PROFESSORS: Abarca, Binggeli, Cohoon, Fernández, Garabano, Haines, Henderson, Leyva, Ramos, Romero, Smith, Sowards, Simon, Tafoya, Weaver, Wiebe
LECTURERS: Baker, Hibbert, Risch

Women and men are invited to participate in this interdisciplinary program that studies women, gender relations, and sexuality. Since its inception in the 1970's, women's studies scholarship has significantly revised every major discipline in the liberal arts curriculum, from history and literature, to art and political science. Feminist scholarship has also been the catalyst for new directions in research within other established academic fields such as science and business.

Women's and gender studies courses offer students a rigorous education in feminist theory, diverse gender roles and sexual identities, the history of gender relations, economic and social policies affecting women, and in the creative work of women. Courses offered in the Certificate Program focus on issues of equality between women and men either nationally or globally, with particular emphasis on the U.S./Mexico border. The Women's Studies Program understands that knowledge is created both in and outside of the university; therefore, many courses integrate the insights and experiences of community activists, community organizations, and people in the El Paso/Juárez and greater border region.

While the Women's Studies Program was created in 1981, UTEP has offered undergraduate courses in women's studies since the early 1970's. The Graduate Certificate in Women's and Gender Studies, created in 2002, is available both to degree-seeking UTEP graduate students and to non-degree seeking professionals in the surrounding border area. To date, the program offers one interdisciplinary graduate course in women's studies; other courses applicable for the Certificate are cross-listed with other departments and deal with the impact of gender within specific disciplines, such as History, Public Administration, and Sociology, to name a few. Because of its interdisciplinary nature, the Certificate complements any field of study or profession, and it fosters the development of gender equality in scholarship and in the workplace.

Graduate Certificate in Women's and Gender Studies

Admission Requirements

The admission requirements for the graduate certificate are as follows:

1. Bachelor's degree with a minimum 3.0 GPA*
2. Acceptance by the Graduate School
3. Completed application form for the Certificate Program from the Women's Studies Program
4. An appointment with the advisor of the Certificate Program

Note: The advisor may extend conditional admission to students with less than a 3.0 GPA.

To complete a certificate in Women's or Gender Studies, students must complete at least 12 hours of courses from at least two different disciplines. One core course must be taken as part of the total 12 hours: WS 5300 Interdisciplinary Feminist Theory and Methodology.

The following list of courses has been approved for Women's and Gender Studies credit. The Women's Studies Director may approve courses for the Certificate that are not listed but contain a substantial women's and gender studies component.

English

- ENGL 5320 Literary Criticism: Feminist and Queer Theory
- ENGL 5325 Genre, Theory and Practice: Genre and Gender
- ENGL 5327 Variable Topics in Contemporary Literature: Contemporary British Women Writers
- ENGL 5327 Variable Topics in Contemporary Literature: Literature of Women of Color
- ENGL 5350 Seminar, Special Topics: Women and Nature Writing
- ENGL 5356 Seminar, Studies in American Literature Since 1860: American Women Writers

History

- HIST 5305 Studies in U.S. History: Gender and Labor Movements
- HIST 5309 Studies in Latin American History: Gender in Colonial Mexico
- HIST 5374 Seminar in Borderlands History: Gender and Sexuality in the Borderlands
- HIST 5377 Seminar in Latin American History: Women in Argentina

(These courses may be tailored by women's studies faculty to fulfill the certificate)

MAIS 5350 History of an Idea

MAIS 5360 Contemporary Issues

Political Science

POLS 5311 Seminar in Racial, Ethnic, and Gender Politics in America

POLS 5357 Women and Men in Management

Sociology

SOCI 5330 Social Inequality

Women's Studies (WS)

5300 Interdisciplinary Feminist Theory and Methodology (3-0)

This course offers an introduction to feminist critical theories in the humanities and social sciences. It examines models of inclusion of diverse women in research and theory and investigates what constitutes "feminist" research. It places special emphasis on the application of feminist theories to current research, public policy, or activism in women's and gender studies.

5320 Directed Study (3-0)

Directed program of independent readings and/or a research project on a topic in women's or gender studies. Requires consent of the course instructor and the program director. *Prerequisite:* Department approval.

5390 Special Topics (3-0)

Studies in special topics and current issues in women's and gender studies.





COLLEGE OF SCIENCE

- [College of Science](#)
- [Master of Science in Bioinformatics](#)
- [Master of Science in Environmental Science](#)
- [Master of Science in Interdisciplinary Studies](#)
- [Biological Sciences](#)
- [Chemistry](#)
- [Geological Sciences](#)
- [Mathematical Sciences](#)
- [Physics](#)





College of Science

The College of Science is the home of the University's first doctoral degree program, the Doctor of Geological Sciences, which was approved in 1974. In 1991, the designation of the degree was changed to Ph.D. in Geological Sciences. The College now offers the Ph.D. in Biological Sciences and also participates in two multidisciplinary Ph.D. programs. The Departments of Chemistry and Physics are participants in a program leading to the Ph.D. degree in Materials Science and Engineering and the Departments of Biological Sciences, Chemistry, Geological Sciences, and Physics are participants in a program leading to the Ph.D. degree in Environmental Science and Engineering. Information about admission to these programs and degree requirements is found in the Interdisciplinary Programs section of this catalog.

Doctor of Philosophy in Environmental Science and Engineering

The Ph.D. in Environmental Science and Engineering is an interdisciplinary doctoral program, coordinated by the Center for Environmental Resource Management (CERM) to prepare scientists and engineers to address the environmental issues facing this region, the nation, and the world. The program emphasizes a cross-disciplinary perspective to the understanding, management, and remediation of human impacts on the environment, with a particular focus on problems of the Southwest Border region. For information regarding admission and degree requirements, students should refer to the Interdisciplinary Programs section.

Doctor of Philosophy in Materials Science and Engineering

The Ph.D. in Materials Science and Engineering is an interdisciplinary doctoral program, coordinated by the Materials Research and Technology Institute (MRTI) to prepare scientists and engineers to address the rapidly expanding opportunities and problems created by emerging materials-related industries. The program emphasizes a cross-disciplinary perspective of this vital field with a range of skills linking materials, structure, properties, synthesis and processing, and performance. For information regarding admission and degree requirements, students should refer to the Interdisciplinary Programs section.

Master's Degrees

The College of Science offers eleven graduate degrees at the master's level. These include Master of Science (MS) degrees in Bioinformatics, Biological Sciences, Chemistry, Environmental Science, Geological Sciences, Geophysics, Mathematics, Physics, and Statistics. Five-year BS-MS programs are offered in Chemistry and Physics. The Department of Mathematical Sciences offers a Master of Arts in Teaching with a major in Mathematics (MAT). For information regarding admission and degree requirements for these degrees, students should refer to the individual Department sections.

A Master of Science in Interdisciplinary Studies (MSIS) degree is available to students who wish to undertake interdisciplinary studies, which cannot be accommodated within the normal programs of the College's academic departments. Curricula in this program are individualized to meet the needs of students.





Master of Science in Bioinformatics

138 Bell Hall
(915) 747-8484
bioinformatics@utep.edu

PROGRAM DIRECTOR: Mng-Ying Leung

The Master of Science degree in Bioinformatics is an interdisciplinary professional degree administered through the College of Science through coursework in the Departments of Biological Sciences, Chemistry, Computer Science, and Mathematical Sciences. Bioinformatics is an emerging technical field that draws upon advanced knowledge and methodologies in biology, chemistry, computer science, mathematics and statistics, especially in the areas of molecular modeling, DNA data base analysis/management, and protein structure. As an academic field, bioinformatics thus combines elements of several different areas into a specialized interdisciplinary program of study. Although the greatest current demand for trained professionals in bioinformatics is from pharmaceutical companies, there is growing interest from the fields of agriculture, infectious disease, pest-specific environmental science, criminal forensics, environmental science, biodiversity, and evolutionary biology.

Requirements for Admission

In addition to the general requirements for admission into a graduate program as specified by the Graduate School, applicants must separately submit to the Bioinformatics Admissions Committee via the Program Director: 1) a completed Bioinformatics Program Application, 2) unofficial copies of transcripts, GRE/TOEFL scores, 3) a brief statement summarizing professional goals, and 4) at least two letters of recommendation.

Prior to making a recommendation on acceptance to the Graduate School, the Bioinformatics Admissions Committee will review the academic preparation of applicants. Unconditional admission requires a completed bachelor's degree that includes satisfactory undergraduate coursework experiences in biology, chemistry, computer science, mathematics, and statistics. This foundation is represented by the following UTEP courses and their several underlying prerequisites (or by the equivalent experience at other institutions):

| | | |
|------|-----------|--|
| BIOL | 3414 | Molecular Cell Biology |
| CHEM | 4330 | Biochemistry |
| CS | 2402 | Data Structures |
| MATH | 2300 | Discrete Mathematics |
| STAT | 2380-2182 | Statistical Methods and its laboratory |

Course descriptions and prerequisites of these courses are provided in the UTEP Undergraduate Catalog. Because this suite of foundation courses is seldom met by traditional undergraduate curricula, potential applicants should make early inquiry of the Program Director for consultation on its expeditious completion.

Degree Requirements

The Master of Science degree in Bioinformatics consists of 40-41 graduate hours comprised of required courses and electives drawn from a restricted menu. The program of study is intended to be a course-intensive experience requiring two years of full-time academic work, including a summer internship in the public or private sector between the first and second years. The internship is required of all students in the program and it may be counted as a 3 credit hour elective course. Thesis is an option but not a requirement for this degree.

I. Internship

The student is responsible for securing an internship offer from an academic, industry, or government institution which is a current or potential employer of bioinformatics professionals. For the internship to count towards the Master of Science degree in Bioinformatics, the student must obtain pre-approval from the Bioinformatics Program Committee before the start of the internship. An evaluation form will be sent to the employer at the end of the internship and the student must receive a grade of "Satisfactory" or better in order to fulfill the internship requirement of this degree.

II. Courses

1. Required courses and seminars (28 semester hours):

| | | |
|--|------|--|
| BINF | 5341 | Analysis and Modeling of Biological Structures |
| BINF | 5351 | Introduction to Bioinformatics I: Basic Sequence Comparisons |
| BINF | 5352 | Introduction to Bioinformatics II: Gene Finding and Genomic Comparison |
| BINF | 5354 | Post-Genomic Analysis |
| BIOL | 5340 | Structure and Function of Macromolecules |
| STAT | 5328 | Introduction to Statistical Analysis |
| MT | 5310 | Fundamentals of Computers |
| MT | 5314 | Data Base Applications |
| Plus 4 credit hours of seminars chosen from: | | |
| BINF | 5110 | Biology Seminar for Bioinformatics |
| BINF | 5111 | Chemistry Seminar for Bioinformatics |
| BINF | 5112 | Computer Science Seminar for Bioinformatics |
| BINF | 5113 | Mathematics Seminar for Bioinformatics |

2. In addition, students will take a total of 12 or 13 semester hours chosen from the list of courses below, and they should take courses from lists b) and c) only after they have completed 18 semester hours in the program. No more than 6 hours from list b) can be counted towards the MS. in Bioinformatics degree.

a) Regular courses

| | | |
|------|------|----------------|
| BIOL | 5316 | Biosystematics |
|------|------|----------------|

| | | |
|---|------|---|
| BIOL | 5326 | Advances in Immunological Concepts |
| BIOL | 5329 | Physiology of the Bacterial Cell |
| BIOL | 5342 | Synthesis and Degradation of Macromolecules |
| BIOL | 5343 | Mechanisms of Cellular Toxicity |
| BIOL | 5344 | Molecular Pathogenesis |
| CHEM | 5329 | Contemporary Topics in Organic Chemistry |
| CHEM | 5339 | Contemporary Topics in Biochemistry |
| CHEM | 5342 | Physical Biochemistry |
| CS | 5334 | Parallel and Concurrent Programming or |
| MT | 5328 | Applied Multiprocessing Computing |
| (Only one of CS 5334 or MT 5328 can count as an elective for the M.S. degree in Bioinformatics) | | |
| CS | 5336 | Scientific and Program Visualization |
| CS | 5341 | Advanced Computer Architecture |
| CS | 5350 | Advanced Algorithms |
| CS | 5351 | Interval Computations |
| CS | 5353 | Topics in Emerging Computing Paradigms |
| CS | 5383 | Topics in Software Assurance |
| MATH | 5330 | Computational Methods of Linear Algebra |
| MATH | 5335 | Techniques in Optimization |
| MT | 5316 | Web-Based Computing |
| MT | 5328 | Applied Multiprocessing Computing |
| STAT | 5336 | Analysis of Categorical Data |
| STAT | 5386 | Stochastic Processes |
| STAT | 5388 | Multivariate Data Analysis |
| STAT | 5390 | Nonparametric Statistics |
| STAT | 5391 | Time Series Analysis |
| STAT | 5392 | Statistical Computing |

All CS and MT electives require prior approval from the Department of Computer Science before enrollment.

b) Project/Internship courses.

| | | |
|------|--------|-------------------------------------|
| BINF | 5353 | Bioinformatics Internship |
| BIOL | 5302 | Research in the Biological Sciences |
| CHEM | 5396 | Graduate Research in Chemistry |
| CS | 5391 | Individual Studies |
| CS | 5396/7 | Graduate Projects |
| MATH | 5396 | Graduate Research |
| STAT | 5396 | Graduate Research |

c) Thesis courses. Six hours of thesis courses BINF 5398 and BINF 5399 may be taken in place of regular elective course in list a) above to count towards the M.S. in Bioinformatics degree. All University requirements for Master's theses apply.

d) A maximum of up to six credit hours of approved advanced undergraduate courses in biology, chemistry, computer science, mathematics, or statistics. Only undergraduate courses which are listed as applicable towards graduate degrees by the Graduate School can be counted towards the M.S. in Bioinformatics degree (see Graduate Catalog listings under individual Departments). Approval from the Graduate Advisor is required.

3. With the approval of the Bioinformatics Program Committee and the Graduate School, up to 6 semester hours of graduate work may be transferred from another accredited institution to replace equivalent courses listed in 1 and 2 a) above. Only credit hours that have not been counted towards a previously awarded degree are allowed to be transferred.

For Graduate Students Only

Bioinformatics (BINF)

5110 Biology Seminar for Bioinformatics (1-0)

Reading and discussions of various topics in the biological sciences related to bioinformatics. Each student is expected to give at least one presentation during the course. *Prerequisite:* Department approval.

5111 Chemistry Seminar for Bioinformatics (1-0)

Reading and discussions of various topics in Chemistry related to bioinformatics. Each student is expected to give at least one presentation during the course. *Prerequisite:* Department approval.

5112 Computer Science Seminar for Bioinformatics (1-0)

Reading and discussions of various topics in computer science related to bioinformatics. Each student is expected to give at least one presentation during the course. *Prerequisite:* Department approval.

5113 Mathematics Seminar for Bioinformaticians (1-0)

Reading and discussions of various topics in mathematical sciences related to bioinformatics. Each student is expected to give at least one presentation during the course. *Prerequisite:* Department approval.

5341 Analysis and Modeling of Biological Structures (2-3)

Introduction to the principles and methods used for the three-dimensional structural determination and simulation of macromolecules of biological interest. Molecular recognition, conformational analysis, and molecular dynamics; ligand design and docking; and modern methods for protein structure determination. *Prerequisite:* Department approval. (BINF 5341 is the same course as CHEM5341.) Laboratory fee required.

5351 Introduction to Bioinformatics I: Basic Sequence Comparisons (2-3)

Theory and practice of sequence analysis, with an emphasis on nucleic acid comparisons and homologue determination. Includes understanding and use of Internet and computational tools with both public sequencing databases and experimental data. *Prerequisite:* Department approval. (BINF 5351 is the same course as BIOL 5351.) Laboratory fee required.

5352 Introduction to Bioinformatics II: Gene Finding and Genomic Comparisons (2-3)

A continuation of BINF 5351 with an emphasis on the analysis of protein structural information. Also includes gene annotation and whole genome comparisons. (BINF 5352 is the same course as BIOL 5352.) *Prerequisite:* Department approval. Laboratory fee required.

5353 Internship in Bioinformatics (0-0-6)

Practical on-the-job experience as an intern academic, industry, or government institution which is a current or potential employer of bioinformatics professionals. No more than 3 hours of BINF 5353 may count toward a graduate degree. *Prerequisite:* Department approval.

5354 Post-Genomic Analysis (2-3)

The extraction and confirmation of information from entire and partially assembled genome sequences. Includes the design and use of DNA arrays, SNP's and applied proteomics in the identification and verification of expressed genes of interest. (BINF 5354 is the same course as BIOL 5354 and STAT 5354.) *Prerequisite:* Department approval. Laboratory fee required.

5398 Thesis (0-0-3)

Initial work on the thesis. *Prerequisite:* Department approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisites:* BINF 5398 with a grade of "B" or better and department approval.

Course descriptions for other required and elective courses may be found in the Biological Sciences, Chemistry, Computer Science (CS and MT), and Mathematical Sciences departmental listings of this Graduate Catalog.





Master of Science in Environmental Science

207-A Geology Building
(915) 747-5554
esci@utep.edu

PROGRAM DIRECTOR: Carl Lieb
PROGRAM COORDINATOR: Joel Gilbert

Requirements for Admission

The admission requirements include: (1) a bachelors degree in a science or engineering discipline, (2) a statement of purpose outlining the prospective student's area of interest within environmental science, (3) three letters of recommendation, and (4) GRE scores. Foreign students who have not completed a degree at an English speaking university are required to take the TOEFL exam and must obtain the minimal score specified by the Graduate School for admission into graduate programs.

Degree Requirements

Each student must complete at least 30 hours including 24 hours in organized courses, and a thesis (6 hours). The curriculum must include the ES core courses. However these can be replaced with electives depending on the student's prior experience and B.S. coursework. Specific courses will be established by each student's Advisory Committee. A maximum of 6 hours may be taken in independent studies classes and 6 hours may be taken in upper division undergraduate classes after approval from the program. No more than 6 semester hours of elective courses can be taken from departments outside the Colleges of Science and Engineering. Up to six semester hours of graduate work may be transferred from another accredited institution. All course work transferred from other institutions requires approval of both the graduate studies committee and the Graduate School. Courses for which a grade of "C" or lower was earned may not be transferred. Correspondence courses are also not accepted for graduate credit.

All students must register for ESCI 5101 each semester they are in residence. All candidates are required to pass an oral defense of their thesis in an open forum. Candidates must submit a draft of the thesis at least 7 days prior to the defense date.

Semester Hour Requirements

Semester Credit Hour Requirements

| | |
|----------------------------|----|
| Environmental Science Core | 13 |
| Electives | 11 |
| Thesis research | 6 |
| Total (SCH) | 30 |

Foundation courses

Courses required of all students in the proposed program:

Environmental Science Core (13 semester hours)

ESCI 5101 Graduate Seminar (must be taken 2 times)

Two courses from the following:

ESCI 5401 Environmental Biology

ESCI 5402 Environmental Chemistry

ESCI 5403 Environmental Geology

One course from the following:

POLS 5380 Selected Problems in Government

ENGL 5312 Technical Writing Proseminar

ENGL 5315 Professional Writing Seminar

Courses freely elected by students (11 semester hours)

Students must complete at least 11 semester hours of elective courses. No more than 6 semester hours of approved upper-division undergraduate course work may be taken and no more than 6 semester hours may be in directed study course work.

Thesis Research (6 semester hours required)

ESCI 5398 Thesis Research

ESCI 5399 Thesis Research

Environmental Science (ESCI)

5101 Graduate Seminar (1-0)

Presentation and discussion of topics in environmental science and engineering by graduate students, faculty and visitors. *Prerequisite:* Enrollment in the MS program in Environmental Science.

5315 Topics in Environmental Science (3-0)

Study of topics in fields such as environmental justice, environmental chemistry, environmental biology, environmental justice, environmental health, physics, hydrology and environmental law. May be repeated when topics vary. *Prerequisites:* Graduate standing and instructor approval.

5401 Environmental Biology (3-3)

Examination of the relationship between biological and physical environments. Topics will include ecology and biogeochemical cycles. *Prerequisites:* Enrollment in the MS program in Environmental Science or permission of program director and one semester of course work in introductory biology.

5402 Environmental Chemistry (3-3)

Physical and chemical processes influencing the behavior of contaminants in the air, water and soil. Includes acidity, basicity, redox properties, solubility, partitioning and transport in the environment. The laboratory will emphasize analytical protocols utilized in environmental laboratories. *Prerequisites:* Enrollment in the MS program in Environmental Science or permission of program director and one year of introductory course work in chemistry.

5403 Environmental Geology (3-3)

Addresses the relation of earth sciences to environmental issues. Topics will include geohazards, engineering geology, ground and surface water, erosion, geochemistry, and global change. Local and national problems in environmental geology will be highlighted. The laboratory will emphasize analysis of earth materials, mapping, and problem solving. *Prerequisites:* Enrollment in the MS program in Environmental Science or permission of program director and one semester of course work in physical geology.

5398 Thesis Research I (0-0-3)

Initial work on the thesis.

5399 Thesis Research II (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisite:* ESCI 5398.





Master of Science in Interdisciplinary Studies

207-A Geology Building
(915) 747-5554
esci@utep.edu

PROGRAM DIRECTOR: Carl Lieb
PROGRAM COORDINATOR: Joel Gilbert

The Master of Science in Interdisciplinary Studies (MSIS) program is designed to satisfy the need for interdisciplinary graduate programs of study, which cannot be accommodated within the confines of the normal graduate programs of the University's academic departments. Typical interdisciplinary courses of study include Arid Region Studies, Environmental Science, Resource Management, Engineering Management, Materials Science, curricula in Computer Applications, and others. All such interdisciplinary programs require courses from the offerings of several different departments. The curricula under the MSIS program are individually tailored to the needs of each student.

Requirements for Admission

In addition to the other Graduate School entrance requirements, including a satisfactory score on the GRE, applicants for the MSIS program must submit a letter outlining their proposed areas of study and their graduate education goal. Upon the receipt of the application documents and letter, an evaluation is made to determine the Program's ability to satisfy the needs of the applicants. Upon acceptance of the applicant into the program, a Guidance Committee, made up of at least three graduate faculty members from different departments, is selected by the Program Director and approved by the Graduate School to guide the student in his or her program. Faculty selected will normally have interests and expertise in the student's proposed field of study. The committee, in consultation with the student, determines courses for the individual study plan. This committee normally also acts as the student's examination committee.

Special Requirements for the MSIS Degree

The MSIS degree requires 36 hours of course work; at least 27 of these hours must be selected from graduate-level courses. The individually designed curriculum must include courses from the offerings of at least three different departments with no more than 15 hours in the department of highest course concentration and no more than 12 hours of credit from any other single department. At least half of all semester hours credited toward the degree must be selected from graduate credit courses offered by science and/or engineering departments.

Up to 6 hours of graduate-level individual instruction problem-solving courses may be used to satisfy degree requirements. Students enrolled in such courses are expected to submit a report of the work accomplished. If the student desires and the Guidance Committee concurs, this report may be bound and presented in the form of a thesis.

The individualized curricula are composed of courses listed under the various individual departmental offerings in this catalog.







Biological Sciences

2.120 Biosciences Bldg.
(915) 747-5844
biology@utep.edu

CHAIRPERSON: Robert A. Kirken

GRADUATE FACULTY: Aguilera, Aley, Almeida, Arenaz, Cox, Das, Ellzey, Freeman, Garza, Goldstein, Gosselink, Harris, J. Johnson, K. Johnson, Kirken, Kan-Mitchell, Lieb, Llano, Loughheed, MacKay, Maldonado, Miller, Miranda, Shpak, Tweedie, Walsh, Worthington, Zhang

The Department of Biological Sciences offers a Master of Science degree and a Doctor of Philosophy degree in Biological Sciences.

Master of Science in Biological Sciences

Requirements for Admission

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education at a foreign institution
2. Undergraduate degree in biology or a related field and at least eight semester hours of general chemistry
3. Competitive scores in the Verbal, Quantitative and Analytical Writing components of the Graduate Record Examination (GRE)
4. Competitive TOEFL score for international applicants whose first language is not English or who have not completed a university degree in the U.S. or other English-speaking institution

Requirements for the Master's Degree in Biological Sciences

A minimum of 30 semester hours to include:

1. Completion of 6 semester hours of Thesis (BIOL 5398-BIOL 5399)
2. A minimum of 21 semester hours of graduate-level work (may include thesis)
3. A minimum of 3 semester hours of Seminar (Biology 5130) or equivalent Special Topics Seminar courses
4. A maximum of 9 semester hours of approved upper-division undergraduate work
5. A maximum of 6 semester hours of BIOL 5302 or BIOL 5502 (Research in the Biological Sciences) to count toward degree
6. A maximum of 6 semester hours in an area of concentration

A thesis based on original work is required and must be defended orally. The student should decide on an area of specialization and select a supervising professor within the first semester or 12 semester hours of admission. The supervising professor will act as chairperson of the thesis committee, which will be comprised of a minimum of three graduate faculty members, including one from outside the Department of Biological Sciences.

Ph.D. in Biological Sciences

The educational objective of the doctoral program in Biological Sciences is to prepare students for research on the pressing pathobiological problems of the region, with an emphasis on (1) the pathogenesis of infectious diseases, (2) the toxic and carcinogenic effects of environmental pollutants, and (3) neurological and metabolic disorders.

Requirements for Admission

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education in a foreign institution
2. Undergraduate degree in biology or a related field and successful completion of:
 - a. two semesters of organic chemistry with lab
 - b. one semester of calculus
 - c. course work in physiology, ecology, evolutionary theory, microbiology, cell biology, biochemistry, and genetics
3. Competitive scores in the Verbal, Quantitative, and Analytical Writing components of the Graduate Record Examination (GRE)
4. Personal statement of research and professional interests
5. Three letters of recommendation indicating endorsement of the applicant for doctoral study
6. Competitive TOEFL score for international applicants whose first language is not English or who have not completed a university degree in the U.S. or other English-speaking institution. Successful candidates typically have scores above 550/computerized TOEFL 213.

Requirements for the Ph.D. Degree in Biological Sciences

A minimum of 72 semester hours beyond the Bachelor's degree to include:

1. 36 semester hours of course work and seminars
2. 30 semester hours of dissertation research
3. 6 semester hours of dissertation (BIOL 6398 and BIOL 6399)

With Department approval, students entering the program with a Master's degree may count up to 24 semester hours of graduate course work as advanced standing toward the Ph.D. degree. Students with a doctorate in a related field may be granted additional advanced standing.

Ph.D. degree. Students with deficiencies in biochemistry, cell biology, microbiology, physiology, genetics, ecology, or evolutionary theory will be required to take additional course work to remove the deficiencies.

Ph.D. Curriculum

1. Required course work (16 semester hours)

- BIOL 5130 Biological Sciences Seminar (taken 3 times)
- BIOL 5131 Ethical, Social, and Political Dimensions of Science
- BIOL 5328 Biostatistics
- BIOL 5340 Structure and Function of Macromolecules
- BIOL 6301 Environmental Pathobiology
- BIOL 6310 Advanced Research Techniques

2. Additional requirements include two of the following, one of which must be at the doctoral (6000) level (6-7 semester hours)

- BIOL 5326 Advances in Immunological Concepts
- BIOL 5346 Ecosystem Toxicology
- BIOL 5360 Limnology
- BIOL 6303 Gene Regulation
- BIOL 6304 Physiological Regulatory Mechanisms
- ESE 6404 Environmental Biology

3. Electives

Additional course work to total a minimum of 36 semester hours

4. Dissertation research (30 semester hours minimum)

Options include:

- BIOL 6390 Independent Research
- BIOL 6490 Independent Research
- BIOL 6590 Independent Research
- BIOL 6690 Independent Research

5. Dissertation (6 semester hours)

- BIOL 6398
- BIOL 6399

Admission to Candidacy

The student must pass a qualifying oral examination in order to advance to candidacy for the doctorate. This exam will be designed to assess the candidate's knowledge and understanding of the material covered in the core courses as well as the candidate's ability to rationally discuss the design, implementation, and analysis of a research problem of the student's and the committee's choosing. The Preliminary Examination Committee will determine whether the student displays sufficient breadth of knowledge and understanding of basic principles to undertake original research.

Dissertation

A dissertation demonstrating both the ability to do original independent research and competence in scholarly exposition will be required of all students. The dissertation must present original research and should provide the basis for one or more publishable contributions to the research literature. The dissertation will be supervised by the Dissertation Advisor, in consultation with a Dissertation Committee consisting of at least three additional members, at least one of whom must be a graduate faculty member from outside the Department of Biological Sciences. The candidate will present a dissertation proposal for approval by the Dissertation Committee.

Final Oral Examination

Upon completion of the dissertation, the student must defend, in public, his or her work. The Dissertation Committee will be responsible for administering the final public oral defense and will have the responsibility of determining whether the written dissertation and its oral presentation and defense are acceptable.

For Undergraduate and Graduate Students

Biology (BIOL)

3119 Experimental Embryology

3318 Developmental Biology

3320 Genetics

3120 Virtual Genetics

3321 Evolutionary Theory

3326 Animal Ecology

3330 Histology

3341 Plants in Southwest Cultures

- 3414 Molecular Cell Biology
- 3416 Ecology
- 3427 Desert Ecology
- 4198 Special Problems
- 4223 Transmission Electron Microscopy
- 4225 Field Biology
- 4298 Special Problems
- 4317 Plant Ecology
- 4322 Biological Ultrastructure Interpretation
- 4324 Animal Behavior
- 4325 Field Biology
- 4326 Bioarchaeology
- 4370 History and Philosophy of Biology
- 4388 Mammalian Physiology
- 4390 Biological Practicum
- 4398 Special Problems

Botany (BOT)

- 3330 Comparative Plant Morphology
- 3332 Economic Botany
- 3340 Plant Physiology
- 3437 Plant Taxonomy

Microbiology (MICR)

- 3128 Microbial Ecosystems Techniques
- 3328 Microorganisms in Ecosystems
- 3443 Pathogenic Microbiology
- 3445 Microbial Physiology
- 3449 Prokaryotic Molecular Genetics
- 4152 General Virology Techniques
- 4351 General Virology
- 4355 Medical Mycology
- 4453 Immunology

Zoology (ZOOL)

- 3464 Medical Parasitology
- 3468 Entomology
- 4155 Vertebrate Paleontology Techniques
- 4157 Advanced Vertebrate Paleontology Techniques
- 4181 Vertebrate Physiology Methods
- 4354 Paleozoic and Mesozoic Vertebrate Paleontology
- 4356 Cenozoic Vertebrate Paleontology
- 4380 Vertebrate Physiology
- 4384 Neurobiology
- 4476 Fish, Amphibians, and Reptiles
- 4478 Birds and Mammals

For Graduate Students Only

Biology (BIOL)

5130 Seminar (1-0)

Topics vary and are presented by enrollees and other speakers.

5131 Ethical, Social, and Political Dimensions of Science (1-0)

Readings and discussion on the philosophical and social structure, ethical climate, and public policy environment of the modern scientific research establishment.

5301 Selected Advanced Topics in the Biological Sciences (3-0)

Course in the form of formal classes. May be repeated for credit when topics vary.

5302 Research in the Biological Sciences (0-0-3)

5502 Research in the Biological Sciences (0-0-5)

Emphasizes research, with writing and discussion. Not given as a formal class. May be repeated, but no more than six hours of credit will be counted towards degree. Laboratory fee required.

5305 Herpetology (2-3)

A study of the morphology, taxonomy, and life histories of reptiles and amphibians. Laboratory fee required.

5307 Biology of the Pleistocene (3-0)

A study of the organisms of the Pleistocene.

5313 Biogeography (3-0)

Geographic distribution of plants and animals, and analysis of causative factors.

5316 Biosystematics (3-0)

Methods and principles of taxonomy, classification, and systematics.

5318 Ecology of Desert Organisms (2-3)

Study of the physiological, morphological and behavioral adaptations of desert plants and animals. Effects of desert abiotic factors on species, populations and communities. *Prerequisite:* Department approval. Laboratory fee required.

5322 Advances in Evolutionary Theory (3-0)

Study of evolutionary processes and phenomena at selected levels of biological organization with respect to current hypotheses and research technologies. *Prerequisites:* BIOL 5301 with a grade of "C" or better and department approval.

5323 Ultrastructure (3-0)

Current research advances in cellular biology.

5324 Mammalogy (2-3)

Class Mammalia, with emphasis on morphological, physiological, ecological and behavioral adaptations to past and present environments. Laboratory fee required.

5326 Advances in Immunological Concepts (3-0)

Study of immunological and immunochemical concepts. Emphasis will be placed on recent experimental advances in immunology. *Prerequisite:* MCR 4453 or instructor approval.

5327 Advances in Ecological Theory (3-0)

Study of recent advances in ecological theory with special emphasis on adaptation, population structure and dynamics, behavioral processes, and species interactions.

5328 Biostatistics (2-3)

Study and application of specialized numerical methods in biological sciences. *Prerequisite:* Instructor approval.

5329 Physiology of the Bacterial Cell (3-0)

The study of the biochemical and physiological processes occurring in the bacterial cell. Emphasis will be placed on recent experimental approaches that are in current use in microbial physiology research. *Prerequisite:* Instructor approval.

5340 Structure and Function of Macromolecules (3-0)

Functional biology of cells, with emphasis on the relationship between molecular structure and function.

5342 Synthesis and Degradation of Macromolecules (3-0)

In-depth discussion of the mechanisms and pathways for the synthesis of amino acids, lipids, membranes, and nucleic acids and for the degradation of carbohydrates, lipids, and the salvage pathways. *Prerequisite:* BIOL 5340 or instructor approval.

5343 Mechanisms of Cellular Toxicity (3-0)

Theory and application of toxicology. Focus will be on the absorption, distribution, excretion, and metabolism of xenobiotic and toxic materials and the molecular approaches to the study of toxicology.

5344 Molecular Pathogenesis (3-0)

Cellular and molecular basis of diseases induced or exacerbated by microbes, parasites, pollutants, poor sanitation, and malnutrition.

5346 Ecosystem Toxicology (3-0)

Practical analysis of degraded natural communities of plants and animals, including biotic inventories, detection of bio accumulated toxins, and the use of indicator species.

5351 Introduction to Bioinformatics I: Basic Sequence Comparisons (2-3)

Theory and practice of sequence analysis, with an emphasis on nucleic acid comparisons and homologue determination. Includes understanding and use of Internet and computational tools with both public sequencing databases and experimental data. *Prerequisite:* Department approval. Laboratory fee required.

5352 Introduction to Bioinformatics II: Gene Finding and Genomic Comparisons (2-3)

A continuation of BIOL 5351 with an emphasis on the analysis of protein structural information. Also includes gene annotation and whole genome comparisons. *Prerequisite:* Department approval. Laboratory fee required.

5353 Internship in Biological Science (0-0-6)

Practical on-the-job experience as an intern in government and/or private industry. No more than 3 hours of BIOL 5353 may count toward a graduate degree. *Prerequisite:* Department Approval.

5354 Post-Genomic Analysis (2-3)

The extraction and confirmation of information from entire and partially assembled genome sequences. Includes the design and use of DNA arrays, SNPs and applied proteomics in the identification and verification of expressed genes of interest. *Prerequisite:* Department approval. Laboratory fee required.

5355 Genomic Analysis and Assembly (2-3)

Theory and practice of whole genome sequence assembly using a combination of shotgun and directed techniques. *Prerequisite:* Department approval. Laboratory fee required.

5360 Limnology (3-0)

Study of the freshwater environment, including chemical parameters and biological populations.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues.

Prerequisite: BIOL 5398.

Interdisciplinary Science Courses (SCI)

5311 Classroom research Methodology I (3-0)

Designed to enable students to conduct research and prepare an original project in the area of science education. The course will introduce the basic principles for techniques of a research problem, analysis assessment, and statistical analysis. It also offers a solid theoretical basis in quantitative and qualitative research methodology. *Prerequisite:* Department approval.

5312 Classroom Research Methodology II (3-0)

This is a continuation of Classroom Research Methodology I. Students are required to conduct a research project, learn to gather data, analyze results, write-up a report and submit it for publication. The series will cover in depth content subject areas taught in middle and high school courses. *Prerequisites:* SCI 5311 with a grade of "C" or better and department approval.

6301 Environmental Pathobiology (3-0)

Survey of the biological basis of diseases induced or exacerbated by microbes, parasites, pollutants, and poor sanitation. Topics will include microbial ecology, the integrity and degradation of natural ecosystems, and mechanisms of pathogenesis.

6303 Gene Regulation (3-0)

The molecular biology of the genome, including genetic engineering, structure, and organization of the prokaryotic and eukaryotic genome, regulation of gene expression, and processes that damage and repair genetic material.

6304 Physiological Regulatory Mechanisms (3-0)

Function of cardiovascular, pulmonary, digestive, renal, reproduction, neural, endocrine, and neuroendocrine systems in humans as a foundation for understanding the body's response to pathobiological challenges.

6305 Cell Physiology (3-0)

Physiological aspects of cells and cellular organelles, with emphasis on the potential effects of adverse conditions and cell stress.

6306 Membrane Biology (3-0)

Structure and function of biological membranes at the molecular level. Emphasis is placed on the dynamic aspects of membrane assembly, bioenergetic reactions, receptors, and signal transduction. *Prerequisite:* BIOL 5340 or instructor approval.

6310 Advanced Research Techniques (0-0-6)

An overview of advanced research methods and strategies. Students will rotate through three laboratories and spend 3-4 weeks at each lab.

6312 Biodiversity (3-0)

Genotypic and phenotypic diversity at the population, species, and community levels. Role of bioconservation in maintaining intact communities and preserving genetic heterogeneity.

6345 Molecular Parasitology (3-0)

Invasive and non-invasive parasites, tropical diseases, parasite surface proteins and their variation, unusual glycosylation and fatty acylation, unusual strategies for gene expression and RNA editing and the evolution of parasites. Biochemical and molecular techniques to control parasitic disease will also be discussed. *Prerequisites:* BIOL 5342 and BIOL 5344.

6390 Independent Research (0-0-3)

6490 Independent Research (0-0-4)

6590 Independent Research (0-0-5)

6690 Independent Research (0-0-6)

May be repeated.

6398 Dissertation (0-0-3)

Initial work on the doctoral dissertation.

6399 Dissertation (0-0-3)

Completion of work on the doctoral dissertation. Continuous enrollment required while work on the dissertation continues.



Chemistry

201A Physical Science Building
 (915) 747-5701 (ph)
 (915) 747-5748 (fax)
chemistry@utep.edu
www.chemistry.utep.edu

CHAIRPERSON: Jorge Gardea-Torresdey

GRADUATE FACULTY: Becvar, Chianelli, Davis, Dirk, Eastman, Ellzey, Gardea-Torresdey, Gardner, Lee, Martinez, Narayan, Noveron, Pannell, Salvador, Saupe

Doctor of Philosophy in Chemistry

The Chemistry department administers the Doctor of Philosophy in Chemistry which consists of 72 credit hours beyond the bachelor's level (or at least 42 hours beyond the master's level). The program will provide opportunities for education and research in areas consistent with the strengths of department faculty and established research initiatives. The program is designed to prepare professional chemists for careers in teaching and research in academic, industrial and public sector settings. It will contribute to meeting an anticipated need for doctorally-trained chemists, particularly Hispanics, in industry and in academe. The border region location also places the UTEP program to collaborate with locally-based industry to exploit the opportunities for commercialization of research results.

Requirements for Admission to the Ph.D. Program

Admissions recommendations will be based upon review of an applicant's academic record and other relevant performance indicators, set out in the following list, as to the potential for academic success.

1. Official transcripts of all previous academic work.
2. Official scores on the Graduate Record Examination (GRE).
3. Official TOEFL scores (if required).
4. Three Letters of Recommendation from individuals who are qualified to assess the applicant's potential for doctoral work.
5. A Personal statement setting out the applicant's reasons for wishing to pursue a Ph.D. in Chemistry at UTEP and describing relevant or professional activities.

Requirements for the Degree

A total of 72 semester credit hours beyond the Bachelor's degree will be required for this degree. Students who previously earned a Master's degree in Chemistry may, at the discretion of the admissions committee, be awarded up to 30 hours of credit toward the doctoral degree. Each student's case will be individually evaluated to determine whether additional courses may be required.

Credit Hour Requirements

| | |
|---|----------|
| Core Chemistry Graduate Courses | 15 hours |
| Elective Graduate Courses in Chemistry or Allied Fields-as approved by the student's Dissertation committee | 9 hours |
| Graduate Seminar | 4 hours |
| Departmental Seminar | 6 hours |
| Teaching Practicum | 2 hours |
| Doctoral Research | 30 hours |
| Dissertation | 6 hours |

Required Doctoral Courses

1. Core Chemistry Graduate Courses: (15 credit hours)

Each student must take five courses in the chemistry core distributed as follows. The courses will be selected in consultation with the student's advisor and the program director.

- At least 3 courses (9 hours) from the following:
 - CHEM 5318 (6318) Advanced Analytical Chemistry
 - CHEM 5321 (6321) Advanced Organic Chemistry I
 - CHEM 5331 (6331) Advanced Biochemistry
 - CHEM 5351 (6351) Advanced Physical Chemistry I
 - CHEM 5361 (6361) Advanced Inorganic Chemistry I
- Two courses (6 hours) from the following:
 - a. The two remaining core courses listed above or
 - b. CHEM 5322 (6322) Advanced Organic Chemistry II
 - CHEM 5352 (6352) Advanced Physical Chemistry II
 - CHEM 5319 (6319) Contemporary Topics in Analytical Chemistry
 - CHEM 5329 (6329) Contemporary Topics in Organic Chemistry
 - CHEM 5339 (6339) Contemporary Topics in Biochemistry

CHEM 5341 (6341) Analysis and Modeling of Biological Structures
CHEM 5359 (6359) Contemporary Topics in Physical Chemistry
CHEM 5369 (6369) Contemporary Topics in Inorganic Chemistry

2. Elective Graduate Courses in Chemistry or Allied Fields-as approved by the student's dissertation committee: (9 credit hours)

Each student in accordance with the overall program requirements will develop a degree plan in consultation with her/his supervisor and the program director appropriate to her/his specific interests and academic needs. A minimum of nine hours must be in courses that are directly related to the student's research field, as approved by the student's research director.

The required nine hours of elective courses may be selected from the graduate offerings of the Chemistry and other College of Science Departments. Chemistry Doctoral Candidates, doing research in environmental or materials chemistry may select elective courses from the parallel doctoral programs in Environmental Science and Engineering and Materials Science and Engineering, respectively. With the approval of the student's advisor and the program Director, a student may take undergraduate courses in science fields (that have been approved for graduate credit) to fulfill this requirement. Graduate students in such courses will be expected to do additional work appropriate to graduate-level training.

3. Graduate Seminar (4 credit hours)

Doctoral student are expected to participate in the 1 hour Graduate Seminar Course. They must enroll in the course at least four times. This course will be designed to promote professional development. It will include a wide variety of topics in the areas of scientific information retrieval, laboratory safety, research ethics, oral and written presentation of research results and writing grant proposals. Attention will also be given to providing the students with current information and advice on career opportunities, writing job applications and how to conduct themselves at interviews.

4. Department Seminar (6 credit hours)

All graduate students, in residence, are required to enroll in and attend the weekly seminars that feature accounts of current research by outstanding investigators in chemistry and related scientific areas.

5. Teaching Practicum (2 credit hours)

All doctoral candidates will be required to earn two hours of credit, team-teaching undergraduate (or graduate) courses with an experienced faculty member. Students will also be encouraged to participate in the professional development programs focusing on preparing future faculty and professionals offered through the Graduate School and the Center for Effective Teaching and Learning.

6. Doctoral Research (30 credit hours)

Candidates for a Ph.D., must earn credit for at least 30 semester credit hour of original research in some recognized branch of chemistry. The candidate must work under the guidance of a faculty supervisor. The purpose of the program is to enable the candidates to develop the skills and knowledge to enable them to carry out an independent program of research.

Career Practicum: Credit may, with concurrence of their research director, be given for students to spend a semester in an industrial or governmental environment to permit them to explore possible career options.

7. Doctoral Dissertation (6 credit hours)

All graduates must complete a dissertation that is a substantial work of original scholarship. The dissertation shall contain an introduction that describes the general area of chemical scholarship and clearly identifies the purpose of the investigation. The research shall have led to new knowledge of a standard worthy of publication in a major refereed journal. If previously published articles are to be included in the dissertation, it must be made clear how much the candidate has contributed. Sufficient detail of the nature of the work performed should be provided such that it should be possible for a qualified reader to repeat each step. In cases involving potential patents, all or part of the dissertation may be embargoed for specified periods of time, following accepted university policies. Candidates must defend their dissertations successfully. Part of the defense proceeding will be open to the public.

CHEM 6398 Dissertation

CHEM 6399 Dissertation

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

For Doctoral Students Only

Chemistry (CHEM)

6195 Graduate Seminar (1-0)

Ph.D. in Chemistry seminar.

6196 Graduate Research in Chemistry (1-0)

Prerequisite: Department approval.

6318 Advanced Analytical Chemistry (3-0)

Chemical equilibrium and its applications to separation and analysis. *Prerequisite:* Department approval.

6319 Contemporary Topics in Analytical Chemistry (3-0)

Selected topics of current interest in modern analytical chemistry. May be repeated for credit when topics vary. *Prerequisite:* Department approval.

6321 Advanced Organic Chemistry I (3-0)

A survey of the more important types of reactions in organic chemistry; reaction mechanisms, stereochemistry of intermediates and products; current structural theory.

Prerequisites: CHEM3322 and department approval.

6322 Advanced Organic Chemistry II (3-0)

Theoretical physical organic chemistry, bioorganic chemistry. *Prerequisites:* CHEM6321 with a grade of "C" or better and department approval.

6329 Contemporary Topics in Organic Chemistry (3-0)

Selected topic of current interest in descriptive and theoretical organic chemistry. May be repeated for credit when topics vary. *Prerequisite:* Department approval.

6331 Advanced Biochemistry (3-0)

A survey of the organic and physical aspects of biological chemistry. *Prerequisite:* Department approval.

6339 Contemporary Topics in Biochemistry (3-0)

Selected topics of current interest in organic or physical aspects of biological chemistry. May be repeated for credit when topics vary. *Prerequisite:* Department approval.

6351 Advanced Physical Chemistry I (3-0)

Schrodinger wave mechanics: atomic and molecular quantum states; applications to the treatment of wave functions for atoms and molecules. *Prerequisite:* Department approval.

6352 Advanced Physical Chemistry II (3-0)

Classical and statistical thermodynamics; applications to physical and chemical systems. *Prerequisite:* Department approval.

6359 Contemporary Topics in Physical Chemistry (3-0)

Selected topics of current interest in experimental and theoretical fields of physical chemistry. May be repeated for credit when topics vary. *Prerequisite:* Department approval.

6361 Advanced Inorganic Chemistry (3-0)

Ionic, metallic, and covalent bonding; valence bond, molecular orbital, and ligand field theories; structure and properties of coordination compounds, metal carbonyls, and complexes. *Prerequisite:* Department approval.

6369 Contemporary Topics in Inorganic Chemistry (3-0)

Selected topics of current interest in descriptive and theoretical organic chemistry. May be repeated for credit when topics vary. *Prerequisite:* Department approval.

6396 Graduate Research in Chemistry (0-0-3)

Prerequisite: Department approval.

6398 Dissertation (0-0-3)

Prerequisite: Department approval.

6399 Dissertation (0-0-3)

Prerequisite: Department approval.

Master of Science in Chemistry

The Department of Chemistry offers studies leading to the degree of Master of Science in Chemistry with experimental and/or theoretical research in the following fields of specialization: analytical, biochemistry, environmental, inorganic, organic, organometallic, physical, chemical physics, and materials science.

Requirements for Admission

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education in a foreign institution
2. Undergraduate degree in chemistry
3. Submission of official Graduate Record Examination (GRE) scores
4. TOEFL score of 550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S. or other English-speaking institution

Requirements for Master's Degree in Chemistry

In addition to the institutional requirements for a Master of Science degree, the candidate must also meet the following stipulations: a minimum of 21 of the required 30 hours of credits must be in courses at the graduate level. Credits must include at least one graduate-level course in three of the five areas of organic chemistry, physical chemistry, inorganic chemistry, analytical chemistry, or biochemistry. The candidate must also enroll in CHEM5195 during each semester of residence. Not more than one hour of CHEM5195 may be counted toward the 30 credit hour requirement. The normal program for the MS degree in Chemistry may include 6 hours of supporting work from approved fields. A program of

specialization in chemical physics may be elected with the permission of the graduate advisor. Such a program may include, within the required 30 hours of credits, up to 12 hours in the related fields (e.g., Physics, Mathematics). Courses of study are designed for each student in consultation with the advisor. Each student must confer with the graduate advisor prior to each registration. The thesis presented for this degree must describe original work related to a research problem of some importance. The thesis must be defended orally.

Five-Year BS-MS Program

The curriculum for the BS degree in Chemistry can be completed in three and one-half years. After admission to the Graduate School of the University, it is possible to obtain the MS degree at the end of the fifth year of study in Chemistry. Qualified students should consult their academic advisor about the course of study and about the various forms of financial assistance obtainable through this program.

Chemistry (CHEM)

For Undergraduate and Graduate Students

- 3110 Laboratory for Chemistry 3310
- 3124 Laboratory for Chemistry 3324
- 3125 Laboratory for Chemistry 3325
- 3151 Laboratory for Chemistry 3351
- 3152 Laboratory for Chemistry 3352
- 3221 Laboratory for Chemistry 3321
- 3222 Laboratory for Chemistry 3322
- 3310 Analytical Chemistry
- 3321 Organic Chemistry
- 3322 Organic Chemistry
- 3324 Organic Chemistry
- 3325 Organic Chemistry
- 3351 Physical Chemistry
- 3352 Physical Chemistry
- 4165 Laboratory for Inorganic Chemistry
- 4176 Introduction to Research
- 4211 Instrumental Methods of Analytical Chemistry
- 4212 Laboratory for Chemistry 2411
- 4328 Advanced Topics in Organic Chemistry
- 4330 Topics in Biochemistry
- 4332 Biochemistry
- 4362 Structure of Matter
- 4365 Inorganic Chemistry
- 4376 Introduction to Research
- 4380 Polymer Chemistry

For Graduate Students Only

- 5195 Graduate Seminar (1-0)
- 5196 Graduate Research in Chemistry (0-0-1)
- 5396 Graduate Research in Chemistry (0-0-3)

Prerequisites: Graduate standing and instructor approval.

5301 Modern General Chemistry (3-0)

An intensive course intended for schoolteachers, which presents a thorough grounding in the basic principles of chemistry. May not be counted toward the MS Degree in Chemistry. *Prerequisite:* 18 semester hours of undergraduate Chemistry.

5318 Advanced Analytical Chemistry (3-0)

Chemical equilibrium and its applications to separation and analysis.

5319 Contemporary Topics in Analytical Chemistry (3-0)

Selected topics of current interest in modern analytical chemistry. May be repeated for credit when topics vary.

5321 Advanced Organic Chemistry I (3-0)

A survey of the more important types of reactions in organic chemistry; reaction mechanisms, stereochemistry of intermediates and products; current structural theory.
Prerequisite: CHEM3322.

5322 Advanced Organic Chemistry II (3-0)

A continuation of CHEM5321. *Prerequisite:* CHEM5321.

5329 Contemporary Topics in Organic Chemistry (3-0)

Selected topics of current interest in descriptive and theoretical organic chemistry. May be repeated for credit when topics vary.

5339 Contemporary Topics in Biochemistry (3-0)

Selected topics of current interest in organic or physical aspects of biological chemistry. May be repeated for credit when topics vary.

5341 Analysis and Modeling of Biological Structures (2-3)

Introduction to the principles and methods used for the three-dimensional structural determination and simulation of macromolecules of biological interest. Molecular recognition, conformational analysis, and molecular dynamics; ligand design and docking; and modern methods for protein structure determination. Laboratory fee required.

5342 Physical Biochemistry (3-0)

The physical properties of biological macromolecules and the methods used to analyze their structure and function. Topics include: thermodynamics, electrostatics; protein folding; dynamics and transport processes; enzyme kinetics; IR, UV, EPR Fluorescence and NMR Spectroscopy; X-ray crystallography.

5351 Advanced Physical Chemistry I (3-0)

Schrodinger wave mechanics; atomic and molecular quantum states; applications to the treatment of wave functions for atoms and molecules.

5352 Advanced Physical Chemistry II (3-0)

Classical and statistical thermodynamics; applications to physical and chemical systems.

5359 Contemporary Topics in Physical Chemistry (3-0)

Selected topics of current interest in experimental and theoretical fields of physical chemistry. May be repeated for credit when topics vary.

5361 Advanced Inorganic Chemistry (3-0)

Ionic, metallic, and covalent bonding; valence bond, molecular orbital, and ligand field theories; structure and properties of coordination compounds, metal carbonyls, and complexes.

5369 Contemporary Topics in Inorganic Chemistry (3-0)

Selected topics in Inorganic Chemistry. May be repeated for credit when topics vary.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisite:* CHEM5398.





Geological Sciences

101 Geological Sciences
(915) 747-5501
mail@geo.utep.edu

CHAIRPERSON: Diane I. Doser
PROFESSORS EMERITUS: Kenneth F. Clark, G. Randy Keller, Jr., David V. LeMone, Robert Schmidt
GRADUATE FACULTY: Anthony, Borrok, Doser, Ellis, Gill, Goodell, Hurtado, Langford, Miller, Pavlis, Pingitore, Serpa, Velasco

The Department of Geological Sciences offers a Doctor of Philosophy (PhD) degree in Geological Sciences and the Master of Science (MS) degree in Geological Sciences and in Geophysics (in collaboration with the Department of Physics).

MS Degree in Geological Sciences

Requirements for Admission

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education in a foreign institution
2. Undergraduate degree in geology, with no deficiencies in science courses required for the BS degree in Geological Sciences at UTEP; prospective MS students whose BS degree was not in the geological sciences should contact the Graduate Advisor to discuss procedures leading to acceptance into the program
3. Submission of official Graduate Record Examination (GRE) scores
4. TOEFL score of at least 550 (paper-based), 213 (computer-based) for international applicants whose first language is not English or who have not completed a university degree in the U.S. or at other English-speaking institutions

Requirements for Degree

Students must complete 30 semester hours including a thesis (six hours). At least 21 hours must be in graduate-level courses (a maximum of 6 hours may be in Directed Study course work and a maximum of 9 semester hours may be in approved upper-division undergraduate course work). Work in supporting fields (a minor) is not specifically required. However, course work in supporting fields will often be included in a student's program of study with the approval of the Graduate Advisor and the Graduate School. All candidates are required to enroll in GEOL 5101 every semester they are in residence. All candidates are required to pass an oral defense of their thesis investigation in an open meeting. Draft copies of the thesis must be submitted to the thesis committee no less than 14 days prior to the defense. Two complete copies of the thesis in PDF electronic format, turned in on floppy disk, zip disk, or CD, must be turned into the Graduate School for the semester in which the student intends to graduate. See "Thesis Requirements" in General Degree Requirements in this catalog. One unbound copy and a PDF or Word electronic copy also must be submitted to the student's departmental Graduate Advisor.

MS Degree in Geophysics

Requirements for Admission

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education in a foreign institution
2. Undergraduate degree in geology or geophysics, with no deficiencies in science courses required for the BS degree in Geophysics at UTEP; prospective MS students whose BS degree was not in the geological sciences should contact the Graduate Advisor to discuss procedures leading to acceptance into the program
3. Submission of official Graduate Record Examination (GRE) scores
4. TOEFL score of at least 550 (paper-based), 213 (computer-based) for international applicants whose first language is not English or who have not completed a university degree in the U.S. or at other English-speaking institutions

Requirements for Degree

Students must complete 30 semester hours including a thesis (6 hours). At least 21 hours must be in graduate-level courses (a maximum of 6 hours may be in Directed Study course work and a maximum of 9 semester hours may be in approved upper-division undergraduate course work). Work in supporting fields (a minor) is not specifically required. However, course work in supporting fields will often be included in a student's program of study with the approval of the Graduate Advisor and the Graduate School. All candidates are required to enroll in GEOL 5101 every semester they are in residence. Students should also consult the Department of Physics section for additional requirements.

All candidates are required to pass an oral defense of their thesis investigation in an open meeting. Draft copies of the thesis must be submitted to the thesis committee no less than 14 days prior to the defense. Two complete copies of the thesis in PDF electronic format, turned in on floppy disk, zip disk, or CD, must be turned into the Graduate School for the semester in which the student intends to graduate. See "Thesis Requirements" in General Degree Requirements in this catalog. One unbound copy and a PDF or Word electronic copy also must be submitted to the student's departmental Graduate Advisor.

Time Limits and Catalog Changes

All requirements for an MS in Geological Sciences or Geophysics must be completed within one six-year period. Work more than 6 years old is lost and can be reinstated only by special permission of the Graduate School upon recommendation of the Departmental Committee on Graduate Studies.

General and specific requirements for degrees in the Graduate School may be altered in successive catalogs. Provided the requisite course continues to be offered, the student is bound only by the course requirements of the catalog in force at the time of admission, unless, with the approval of the Graduate School, he or she elects to be bound by the course requirements of a subsequent catalog. This regulation applies to course requirements only.

Ph.D. in Geological Sciences

Requirements for Admission into the Doctoral Program

1. Master's degree in the Geological Sciences, or Bachelor's degree in the Geological Sciences plus 30 hours of post-bachelor's study in the geological sciences from an accredited institution in the United States or proof of equivalent education in a foreign institution; students who hold a master's or bachelor's degree from an accredited, or engineering, institution and intend to make up all deficiencies in their geological background are encouraged to contact the Graduate Advisor to discuss procedures leading to acceptance into the program
2. Submission of official Graduate Record Examination (GRE) scores
3. Three letters of reference
4. TOEFL score of at least 550 (paper-based)/213 (computer-based) for international applicants whose first language is not English or who have not completed a university degree in the U.S. or at other English-speaking institutions

Requirements for Doctoral Candidacy

1. Removal of all academic deficiencies
2. Completion of at least three-fourths of the required credit hours in Geological Sciences and supporting fields
3. Successful completion of the prescribed Comprehensive Examination (Parts I and II)
4. Approval for Candidacy by the Graduate School upon the recommendation of the Comprehensive Examination Committee

Requirements for Degree

1. Minimum of 60 semester hours of graduate study beyond the baccalaureate degree or minimum of 30 semester hours of graduate study beyond the Master's degree
2. Maximum of 12 semester hours of Directed Study course work in the 60-hour program, 6 semester hours in the 30-hour program
3. Enrollment in GEOL 5101 (Graduate Seminar) each term of residence
4. Maximum of 9 semester hours of approved upper-division undergraduate course work; successful completion of the Comprehensive Examination (Parts I and II)
5. Dissertation of 6 semester hours including successful oral defense (GEOL 6320, GEOL 6321)

Foreign Language/Computer Programming Language

Proficiency in a foreign language and/or computer programming language will be required by a student's dissertation committee when it is necessary for the successful completion of the student's dissertation.

Committees

For each master's candidate, the committee will consist of three members of the graduate faculty, two from the Department of Geological Sciences and one from outside the department. For each doctoral candidate, a Doctoral Committee will consist of the dissertation advisor, at least three professors in the Department of Geological Sciences, and at least one scientist or engineer from outside the Department of Geological Sciences—all of whom are members of the graduate faculty and are approved by the Graduate School. The total committee shall consist of at least five individuals.

Examinations

The Graduate Advisor will appoint a Comprehensive Examination Committee to administer the Comprehensive Examination. The Comprehensive Examination will normally be taken after removal of all deficiencies and completion of most of the course work. Any student who fails the Comprehensive Examination twice shall be barred from further consideration for Doctoral Candidacy.

Dissertation

A doctoral dissertation is required. This dissertation must demonstrate the candidate's capacity for originality and independence in recognizing a significant geological problem, in carrying out an effective investigation, and in interpreting and reporting the results. The subject of the dissertation is to be selected in consultation with the dissertation advisor, and it must be approved by the student's Doctoral Committee and by the Graduate School. The dissertation advisor is to supervise the research work and to consult with other members of the Doctoral Committee on the progress of the work. The candidate is required to defend the dissertation before the faculty of the University in an open meeting under the supervision of his Doctoral Committee.

Draft copies of the dissertation must be submitted to the Doctoral Committee 14 days before the defense and any suggested corrections must be made. A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School via the University Microfilms International website (umni.bepress.com), for a format check. This must be submitted prior to the deadline date published in the *Class Schedule* for the semester in which the student intends to graduate. See "Dissertation Requirements" in General Degree Requirements of this catalog. One unbound copy and a PDF or Word electronic copy also must be submitted to the student's departmental Graduate Advisor.

Microfilming of Dissertation

The doctoral candidate who has successfully completed all requirements for the degree is required to pay the cost of microfilm reproduction of the complete dissertation. The signed original copy (unbound) of the doctoral dissertation is sent from the Graduate School to University Microfilms, Ann Arbor, Michigan, for reproduction.

With the dissertation, the student must also submit to the Graduate School two copies of an abstract, not to exceed two pages in length (double-spaced), which has been approved in final form by the Doctoral Committee. This will be published in *Dissertation Abstracts International*.

Publication by microfilm does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged, if desired, by completing a special form to be secured in the Graduate School. In order to protect patent or any other rights, the Graduate School may be requested to delay publication by microfilm for a period of one year. This request must be supported by a written recommendation of the supervising professor.

Time Limits and Catalog Changes

All requirements for a Ph.D. in Geological Sciences must be completed within one eight-year period. Work more than eight years old is lost and can be reinstated only by special permission of the Graduate School upon recommendation of the Departmental Committee on Graduate Studies. Furthermore, all requirements for the doctorate must be completed within five years after passing the comprehensive examination.

General and specific requirements for degrees in the Graduate School may be altered in successive catalogs. Provided the requisite course continues to be offered, the student is bound only by the course requirements of the catalog in force at the time of admission or re-admission within an eight-year limit, unless, with the approval of the Graduate School, he or she elects to be bound by the course requirements of a subsequent catalog. This regulation applies to course requirements only.

For Undergraduate and Graduate Students

Geology (GEOL)

- 4157 **Advanced Vertebrate Paleontology Techniques**
- 4166 **Directed Study, Geology**
- 4266 **Directed Study, Geology**
- 4316 **Geochemistry**
- 4356 **Cenozoic Vertebrate Paleontology**
- 4366 **Directed Study, Geology**
- 4373 **Groundwater Contamination and Reclamation**
- 4380 **Environmental Geology and Geophysics**
- 4383 **General Hydrology**
- 4385 **Introduction to Geographic Information Systems**

Geophysics (GEOP)

- 4167 **Directed Study, Geophysics**
- 4267 **Directed Study, Geophysics**
- 4332 **Exploration Geophysics, Seismic Methods**
- 4334 **Exploration Geophysics, Non-Seismic Methods**
- 4367 **Directed Study, Geophysics**

For Graduate Students Only

Geology (GEOL)

5101 Graduate Seminar (1-0)

Required of all graduate students. Discussion of various geological topics by the faculty, graduate students, and speakers from industry and other institutions. *Prerequisite:* Graduate standing.

5102 Geology of the Southwest (1-3)

A field-based class in which geologic features of the southwestern U.S. will be visited and examined in detail. Emphasis will be placed on stratigraphy, paleontology, structural features, and geomorphology of the region. Rock, mineral, and fossil samples will be collected to augment teaching materials in students' classrooms. Written reports will be required. One hour lecture, bi-weekly 6-hour field trips. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5115 Selected Topics in the Geological Sciences (1-0)

5215 Selected Topics in the Geological Sciences (2-0)

5315 Selected Topics in the Geological Sciences (3-0)

Study of advanced topics in such fields as structural geology, environmental geoscience, economic geology, paleontology, petrology, and geochemistry. May be repeated when the topics vary.

5162 Directed Study in Geology (0-0-1)

5262 Directed Study in Geology (0-0-2)

5362 Directed Study in Geology (0-0-3)

Prerequisites: Graduate standing and instructor approval.

5289 Graduate Research in Geological Sciences (0-0-2)

5389 Graduate Research in Geological Sciences (0-0-3)

Cannot be used to satisfy minimum degree requirements. Grade of S or U.

Prerequisites: Graduate standing and instructor approval.

5303 Computer Applications in the Earth Sciences (3-0)

Principles and applications of software to earth science data analysis and modeling. Topics will include uses of Geographic Information Systems, remote sensing data types and analysis, and uses of other common PC-based applications for earth science data analysis. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5304 Earth Structure (3-0)

Fundamentals of the origin and evolution of earth structure at all scales. Topics include, geological and geophysical methods for determining the structure of the earth, processes of rock deformation including folding and fracturing, plate tectonics, and the influence of large-scale plate tectonic processes on local earth structure. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5305 Earth Materials (2-3)

Study of the minerals and rocks that comprise the crust of the earth, utilizing hand specimens and thin sections of common minerals, igneous, metamorphic, and sedimentary rocks. Materials common in the southwestern part of the U.S. will be given some emphasis. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5306 Studies in Oceanography (3-0)

Review of marine biology, marine chemistry, marine geology, physics of the oceans and consideration of relevant environmental issues. Emphasis will be on primary literature, supplemented by text reading. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5307 Paleobiology (2-3)

Survey of life on earth as revealed by the fossil record. Topics will include the origin of life, evolutionary processes, diversification of life through time, causes and effects of extinction, identification and classification of major groups of organisms, biostratigraphy. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5308 Planetary Geology (3-0)

A survey of the composition, evolution, and geologic features of planetary bodies and the potential for life in the solar system. Topics include origin of the solar system, planetary atmospheres, comparative planetology of terrestrial and Jovian planets, small bodies such as moons, comets and asteroids. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5309 Mineral Resources, Economics, and the Environment (3-0)

Geological characteristics and classification of metallic, non-metallic, and fuel resources. Environmental consequences of mineral extraction and issues of public policy. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5317 Hydrogeology (3-0)

Consideration of hydrologic cycle, groundwater flow, recharge and discharge of groundwater, types and properties of aquifers, principles of flow, groundwater models and groundwater flow to wells. Additional topics include aqueous geochemistry, isotope hydrology, and 1-d contaminant transport.

5318 Petroleum Geology (3-0)

Study of the mature, origin, migration, and accumulation of petroleum, including consideration of porosity/permeability in reservoir systems, behavior of reservoir fluids, and of trap systems. Relationships between plate tectonics and petroleum provinces will be examined.

5343 Isotope Geology (2-1)

Study of the systematics and geochemistry of radiogenic and stable isotopes. The course includes both geochronology and the use of isotopes as tracers in igneous, sedimentary, and metamorphic processes. *Prerequisite:* Graduate standing. Laboratory fee required.

5344 Advanced Petrology (2-3)

Study of magmas and magma genesis in light of field, theoretical, and experimental considerations. The course includes interpretation of isotopic and trace element data. Laboratory studies focus on field trips and petrographic description of thin sections. CHEM 3351-3352 recommended. *Prerequisite:* GEOL 3315 or equivalent. Laboratory fee required.

5345 Environmental Geochemistry (3-0)

Processes of a geological nature, which are important in environmental studies, will be the topic of this course. The geological context is usually important in determining the effect of foreign intrusions into the natural environment. The course will involve problem solving, class participation, exams, field trips, and a semester project report. *Prerequisite:* Graduate standing or instructor approval.

5348 Electron Probe Microanalysis (2-2)

Scientific basis of electron microprobe instrument and technique; laboratory demonstrations of microprobe operation; hands-on operation of microprobe; individual term project and report.

5364 Sedimentary Depositional Environments (3-0)

Reconstruction of ancient depositional environments in the surface and subsurface using facies analysis. Field trips are included. The class will focus on analysis of field examples. *Prerequisites:* GEOL 3425, or instructor approval.

5365 Basin Analysis (3-0)

The study of evolution of sedimentary basins and the influences of tectonics and other factors to create a stratigraphic framework. The course includes basin analysis techniques such as backstripping, paleotemperature calculations, and sequence stratigraphy. Field trips are included. *Prerequisite:* GEOL 3425 or instructor approval.

5367 Advanced Stratigraphy (2-3)

The history, usage, and subtleties of stratigraphy will be investigated through lectures, assigned readings, and examples. Students will have the chance in the field to see if

you agree with those who have defined real stratigraphic units. *Prerequisite:* GEOL 4362 or department approval. Laboratory fee required.

5375 Quantitative Techniques in the Geological Sciences (2-3)

Introduction to techniques for quantitative analysis of geologic data. Emphasis on the extraction of maximum information from large data matrices. Specific applications to petroleum and mineral exploration. Laboratory fee required.

5376 Low Temperature Geochemistry (2-2)

Chemical reactions at the earth's surface and their interpretation by thermodynamic and kinetic principles. Precipitation and dissolution, the solid-solution interface, oxidation and reduction, the distribution and circulation of elements and compounds. *Prerequisite:* CHEM 1306. Laboratory fee required.

5379 Petroleum Geochemistry (3-0)

Examination of the biologic, chemical, and geologic processes involved in the accumulation of petroleum-source rocks, including diagenesis, catagenesis, and metagenesis of petroleum prone organic matter; of migration, accumulation, and maturation of liquid hydrocarbons; and of geochemical parameters useful in hydrocarbon exploration. *Prerequisite:* Graduate standing or instructor approval. Laboratory fee required.

5384 Nuclear Waste Disposal (3-0)

In-depth study of problems and issues associated with the past, current, and projected principles and methods of nuclear waste disposal. The multidisciplinary legal, political and technical aspects of siting, operation, and decommissioning of reactors and the subsequent removal of source waste generated at these facilities is considered. The course examines waste removal, classification, containerization, quality assurance, and transport. Waste repository site selection, performance assessment, operation, and entombment in various geological media are stressed. *Prerequisites:* Graduate standing; students outside the Colleges of Engineering and Science will require instructor approval.

5387 Applied Quaternary Geology (3-0)

Addresses pertinent topics of Quaternary science (including paleoclimatology, geomorphology, hydrogeology, pedology, geochronology, neotectonics, and geophysics) in an environmental context. Major bodies of environmental regulation will be introduced and the relationship of these regulations to Quaternary science will be emphasized. Environmental case studies of national significance will be an integral part of the course. Graduate students from other disciplines are encouraged. *Prerequisite:* Graduate standing or instructor approval.

5388 Geohydrobiology (3-0)

Study of the interaction of groundwater geology with the microbial population of the subsurface. Emphasis is placed on the transport of viruses and bacteria in various subsurface media, microbial effects on water chemistry, and the use of microbes for environmental cleanup of contaminated sites. *Prerequisite:* Graduate standing.

5392 Environmental Risk Assessment (2-3)

Risk assessment techniques to evaluate the risk to human health and the environment posed by air-, soil-, and water-contamination (both groundwater and surface water). Special emphasis will be placed on desert and wetland environments for which case studies will be presented. *Prerequisite:* Graduate standing.

5397 Geology and Mineral Resources of Mexico (3-0)

Stratigraphic and structural framework of the Republic of Mexico with particular reference to the distribution of mineral resources. Field excursion required. *Prerequisite:* Graduate standing.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisite:* GEOL 5398.

5401 Fundamentals of Earth Science (3-3)

Overview of earth science principles and processes and their relationship to environmental issues. Topics will include fundamentals of physical geology and their applications to geo hazards, engineering geology, surface and ground water, erosion, and environmental geochemistry. Atmospheric and climate topics will include global change issues. Labs will feature hands-on experience with earth materials, maps, analytical techniques, and environmental problem solving. *Prerequisite:* Department approval.

5402 Fundamentals of Field Methods in Earth Science (3-3)

Field-oriented, problem-solving studies emphasizing field identification of rocks; study of landforms and processes that create them and the use of maps, aerial photographs, and satellite imagery. Emphasis on developing observational and analytical skills and the use of multiple working hypotheses. *Prerequisites:* GEOL 5401 with a grade of "C" or better and department approval.

5405 Biostratigraphy (3-3)

The systematic analysis of the separation and differentiation of rock units on the basis of the assemblages of fossils which they contain; special emphasis will be placed on the evolution of biohermal systems through time and problems of the establishment and utilization of biostratigraphic units and chronostratigraphic boundaries. *Prerequisite:* Graduate standing in Geology or Biology or instructor approval. Laboratory fee required.

Geophysics (GEOP)

5163 Directed Study in Geophysics (0-0-1)

5263 Directed Study in Geophysics (0-0-2)

5363 Directed Study in Geophysics (0-0-3)

Prerequisites: Graduate standing and instructor approval.

5306 Atmospheric Processes (3-0)

Investigation of fundamental physical principles guiding motions of Earth's atmosphere at multiple scales, including radiation and energy, balance, thermodynamics, fluid motion, boundary layers, balance of forces in the atmosphere, and their interactions to create weather and atmospheric phenomena. *Prerequisite:* Graduate Standing in Science or Engineering or instructor approval.

5336 Digital Image Processing (2-3)

A survey of the techniques used to manipulate digital image data including atmospheric correction, geocoding, image enhancement, and classification. Data from multispectral sensors such as LANDSAT, SPOT, and IRS-C as well as hyperspectral sensors such as AVIRIS are utilized. *Prerequisite:* GEOP 4336. Laboratory fee required.

5352 Geophysical Inverse Theory (3-0)

The quantitative study of mathematical methods used to interpret geophysical measurements and determine earth structure. Techniques for both linear and non-linear geophysical problems are studied to determine the resolution and precision of a geophysical model from a given set of data. *Prerequisites:* GEOP 4332, GEOP 4334, and MATH 3323, or instructor approval.

5353 Reflection Seismic Data Processing (2-2)

The computer application of digital signal processing to reflection seismic data from environmental, petroleum, and crustal surveys. Topics include: definition of survey geometries, data editing techniques, amplitude recovery, bandpass filtering, deconvolution, velocity analysis, F-K filtering, and migration. *Prerequisite:* GEOP 4332, GEOP 5460, or instructor approval.

5354 Seismology (3-0)

A study of earthquake seismology, seismotectonics, and the use of seismological methods to determine earth structure. A theoretical foundation is provided by the study of wave propagation in homogeneous and isotropic media from the standpoint of both ray and wave theory. *Prerequisite:* MATH 4336, PHYS 3351, or instructor approval.

5356 Topics in Geophysics (3-0)

Study of advanced topics in the fields such as exploration geophysics, geothermics, theoretical seismology, potential field, data analysis, environmental applications, inversion, seismotectonics, crustal studies, and global tectonics. May be repeated for credit when the topics vary. *Prerequisite:* Instructor approval.

5357 Well Logging (2-2)

The application of well logs to hydrogeologic, petroleum, and mineral studies to characterize sedimentation history and quantitatively evaluate rock and fluid properties. *Prerequisite:* Graduate standing. Laboratory fee required.

5361 Plate Tectonics (3-0)

The application of geological and geophysical data to the description and evolution of motion between the lithospheric plates. Topics include: relative velocities between plates, triple junctions, plate rotations, seismicity and plate boundaries, marine magnetic anomalies, paleomagnetism, plate driving mechanisms, and relationship of plate tectonic processes to the geologic evolution of the western United States. *Prerequisite:* Graduate standing or instructor approval.

5362 Reflection Seismic Data Interpretation (2-2)

The fundamentals of the geologic interpretation of reflection seismic data. Introduction to seismic data acquisition and processing, and their effects on data interpretation. Interpretation techniques: well log to seismic ties, contour maps, fault plane maps, time-to-depth conversion. Interpretation of data from different structural settings. Seismic stratigraphy and applications of sequence stratigraphy to seismic stratigraphic interpretation. 3-D seismic interpretation. *Prerequisite:* Graduate standing. Laboratory fee required.

5364 North American Geophysical Framework (3-0)

Study of the tectonic evolution of North America from an integrated geological/geophysical approach. Recent literature on large-scale geophysical studies of the lithosphere will be emphasized. *Prerequisite:* Graduate standing or instructor approval.

5365 Topics in Remote Sensing (3-0)

Study of advanced topics in fields such as radar imaging, thermal imaging, image processing, and hyperspectral techniques. May be repeated for credit when the topics vary. *Prerequisites:* Graduate standing and instructor approval.

5366 Directed Study in Remote Sensing (0-0-3)

Emphasizes research and data analysis. Not given as a formal class. May be repeated, but no more than six hours of credit will be counted toward a degree. *Prerequisites:* Graduate standing and instructor approval.

5460 Geophysical Applications of Digital Signal Processing (3-2)

Computer application of discrete signals and systems to geophysical data in one and two dimensions. Properties of the FFT, DFT, Z-transform, and continuous Fourier integral transform. Digital filter design, spectral analysis, deconvolution, spatial filtering of geophysical data sets. Knowledge of FORTRAN, C, or mathematical software package required. *Prerequisite:* Graduate standing or instructor approval.

For Doctoral Students Only

Geology (GEOL)

6105 Directed Study in Geology (0-0-1)

6205 Directed Study in Geology (0-0-2)

6305 Directed Study in Geology (0-0-3)

Prerequisites: Doctoral graduate standing and instructor approval.

6115 Advanced Topics in the Geological Sciences (1-0)

6315 Advanced Topics in the Geological Sciences (3-0)

Advanced topics in paleontology and stratigraphy, mineralogy, environmental geoscience, petrology, geochemistry, structural geology, economic geology, and geophysics. May be repeated for credit when the topics vary. *Prerequisites:* Doctoral graduate standing and instructor approval.

6296 Doctoral Research in Geological Sciences (0-0-2)

6396 Doctoral Research in Geological Sciences (0-0-3)

Cannot be used to satisfy minimum degree requirements. Grade of S or U. *Prerequisites:* Doctoral standing and instructor approval.

6320 Dissertation (0-0-3)

Initial work on dissertation.

6321 Dissertation (0-0-3)

Continued enrollment required while work on dissertation continues. *Prerequisite:* GEOL 6320.

Geophysics (GEOP)

6110 Directed Study in Geophysics (0-0-1)

6210 Directed Study in Geophysics (0-0-2)

Prerequisites: Doctoral graduate standing and instructor approval.



Mathematical Sciences

124 Bell Hall
(915) 747-5761
mathdept@math.utep.edu

CHAIRPERSON: Helmut Knaust

GRADUATE FACULTY: Argaez, Dogan-Dunlap, Duval, Foged, Guthrie, Khamsi, Knaust, Lesser, Leung, Lim, M endez, Moschopoulos, Pownuk, Rosen, Rouhani, Schwab, Sha, Sewell, Solin, Staniswalis, Tchoshanov, Valdez-Sanchez, Velazquez, Winsor, Wojciechowski

The Department of Mathematical Sciences offers the Master of Science (MS) degree in Mathematics or Statistics and the Master of Arts in Teaching (MAT) with a major in Mathematics.

Requirements for Admission

1. Bachelor's degree from an accredited institution in the United States or proof of equivalent education in a foreign institution
2. Undergraduate degree in mathematics
3. TOEFL score of 550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S. or other English-Speaking institution

Departmental Requirements for MS Degree

For the MS degree, both thesis and non-thesis options are available. The thesis option requires 24 semester hours of course work plus the completion of the six-semester hour thesis. The non-thesis option requires 36 semester hours of course work including MATH 5396 or STAT 5396. In either case, a maximum of nine semester hours of approved upper-division undergraduate courses are acceptable. Particular courses of study for the MS must be approved by the departmental committee on graduate studies. The passing of a comprehensive examination is required. All full-time MS students must enroll in MATH 5195 or STAT 5195 each semester in residence.

Specific Requirements for the Master's Degree in Mathematics

Specific course requirements for the MS in Mathematics are MATH 5331, MATH 5351, and STAT 5380.

Specific Requirements for the Master's Degree in Statistics

Specific course requirements for the MS in Statistics are STAT 5380, STAT 5381, STAT 5388, MATH 5321, and MATH 4326. Comprehensive examinations must be passed in Mathematical Statistics (STAT 5380-81) and Applied Statistics (STAT 5385-88).

Departmental Requirements for the MAT Degree

Prior to admission, students must have completed the calculus sequence together with 12 semester hours of advanced courses in Mathematics (3300 or 4300-level). The student's GPA for these 12 hours must be at least 3.0. (Students with a bachelor's degree, who do not satisfy these requirements, must first enroll in the post-baccalaureate program at UTEP.) Since the degree is intended for current and future high school teachers of Mathematics, it is desirable that the student will have obtained a teaching certificate in Mathematics upon completion of the program. (Teaching certification courses are not part of the MAT program; students should consult the College of Education section for such information.)

The Master of Arts in Teaching degree with a major in Mathematics is available in both a thesis (recommended) and a non-thesis option. The thesis option requires 24 hours of course work plus the completion of a six-semester hour thesis in Mathematics Education, while the non-thesis option requires 36 hours of course work. A maximum of nine of these hours may be taken from the 3300 and 4300-level courses listed below. Each student must have his or her courses approved by the Graduate Advisor in order to ensure adequate breadth of courses in the mathematical sciences. A comprehensive examination is required.

Study Plan: At most, 9 hours of undergraduate courses are taken from the list below. At least 15 hours plus 6 hours of thesis work (or 27 hours for the non-thesis option) of Graduate courses: 6-9 hours must be taken from MATH 5360, MATH 5365, or appropriate courses in the College of Education. Other suggested courses: MATH 5311, MATH 5321, MATH 5325, MATH 5351, and STAT 5380.

For Undergraduate and Graduate Students

Mathematics (MATH)

3300 History of Mathematics*

3319 Elementary Number Theory

3320 Actuarial Mathematics

3327 Applied Algebra

3328 Foundations of Mathematics

3335 Applied Analysis I

3341 Introduction to Analysis

4199-

4399 Individual Studies in Mathematics

- 4326 Linear Algebra
- 4329 Numerical Analysis
- 4336 Applied Analysis II
- 4370 Topics Seminar

Statistics (STAT)

- 3330 Probability
- 3380 Sampling Techniques
- 3381 Nonparametric Statistical Methods
- 4380 Statistics I

*Graduate credit only for MAT students.

For Graduate Students Only

Mathematics (MATH)

5195 Graduate Seminar (1-0)

Conferences and discussions of various topics in mathematics and statistics by faculty, graduate students, and outside speakers. Required of all graduate students during each semester of full-time enrollment. May not be counted more than once toward the degree requirement.

5310 Introduction to Functional Analysis (3-0)

Elements of functional analysis for applications in statistics, optimization and computational partial differential equations (PDEs): normed spaces, Banach spaces, Lebesgue spaces, basic inequalities, inner product, Hilbert spaces, orthogonal projections, Riesz theorem, elements of Sobolev spaces. *Prerequisites:* MATH 2313 and MATH 3323 each with a grade of "C" or better.

5311 Applied Mathematics (3-0)

Mathematics 5311 is designed to introduce the student to those areas of mathematics that are useful in engineering and science. Topics are chosen from Differential Equations, Fourier Series, Calculus of Variations, and Theory of Algorithms. The course may be repeated once as content changes. *Prerequisite:* Instructor approval.

5314 Partial Differential Equations (3-0)

Partial derivatives and differential operators, classification of partial differential equations with emphasis on elliptic, parabolic and hyperbolic, examples from physics, maximum principle and well-posedness, boundary conditions, weak formulations, Lax-Milgram lemma, overview of existence and uniqueness results. *Prerequisite:* MATH 5310 with a grade of "C" or better.

5321 Principles of Analysis (3-0)

Investigation of convergence, continuity, differentiability, compactness and connectedness, the Riemann-Stieljes integral, and sequences of functions. *Prerequisite:* MATH 3341.

5325 Principles of Algebra (3-0)

Groups, including subgroups, quotient spaces and homomorphisms, Ring Theory, including ideals and quotients, homomorphisms and polynomial rings. An introduction to modules and fields, including field extensions. *Prerequisites:* MATH 3325 and department approval.

5329 Numerical Analysis (3-0)

Introduction to approximation theory, interpolation, numerical differentiation and integration, solutions of linear and non-linear equations, numerical solution of differential equations, optimization. Emphasis is on error analysis and stability. Several practical examples and computer programs will be covered. *Prerequisites:* MATH 3323 and a working knowledge of a high-level programming language.

5330 Computational Methods of Linear Algebra (3-0)

Numerical methods involved in the computation of solutions of linear systems of equations, eigenvalues, linear least squares solutions; linear programming; error analysis. *Prerequisites:* MATH 3323 and a working knowledge of a high-level programming language.

5331 Real Variables (3-0)

Lebesgue integration, integration with respect to measure, absolute continuity, Fundamental Theorem of Calculus for the Lebesgue integral. *Prerequisite:* MATH 5321.

5335 Techniques in Optimization (3-0)

An introduction to the formulation of optimization problems and their numerical solution with application to problems in science and engineering. Emphasis on deterministic and stochastic techniques such as Newton type methods and simulated annealing. *Prerequisites:* Math 1411 with a grade of "C" or better and knowledge of a high-level programming language.

programming language.

5341 General Topology (3-0)

Topics include: Separation, compactness, connectedness, paracompactness, metric spaces and metrization of topological spaces. *Prerequisite:* MATH 5321.

5343 Numerical Solutions to Partial Differential Equations (3-0)

Introduction to finite difference and finite element methods for the solution of elliptic, parabolic, and hyperbolic partial differential equations. *Prerequisites:* (1) MATH 2326 or MATH 3326; MATH 3323; and MATH 4329, each with a "C" or better or their equivalents and (2) knowledge of a high level programming language.

5345 Numerical Optimization (3-0)

A study of numerical algorithms for solving systems of nonlinear equations, unconstrained optimization, and nonlinear least squares problems. Derivation of necessary and sufficient conditions for constrained optimization, and an introduction to interior-point methodology. *Prerequisites:* MATH 2313 and MATH 3323 each with a grade of "C" or better and knowledge of high-level computer language.

5351 Complex Variables (3-0)

Complex integration and the calculus of residues. Analytical continuation and expansions of the analytic function. Entire, meromorphic, and periodic functions. *Prerequisite:* MATH 5321 or its equivalent as approved by the instructor.

5360 Introduction to Research in Mathematics Education (3-0)

An introduction to current research literature in mathematics education focusing on the relations between theories of cognition and learning and philosophies of mathematics. Topics may include constructivism, Vygotskian theory, genetic epistemology, and technological cognition. The course may be repeated once for credit as content changes. *Prerequisites:* MATH 3300 with a grade of "C" or better and department approval.

5365 Technology in the Mathematics Classroom (3-0)

An introduction to technology used in mathematics education such as graphing calculators, computer algebra systems, course specific software and the use of the Internet, and an exploration of its appropriate and effective use in the mathematics classroom. *Prerequisite:* Department approval.

5370 Seminar (3-0)

Various topics not included in regular courses will be discussed. May be repeated once for credit as the topics vary. *Prerequisite:* Instructor approval.

5396 Graduate Research (0-0-3)

A written report on an appropriate subject in mathematics or statistics is required. May not be counted towards the 24 hours of course work in the thesis option, but may be substituted for three hours of thesis credit. May not be repeated for credit. *Prerequisite:* Instructor approval.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisite:* MATH 5398 or department approval.

Statistics (STAT)

5195 Graduate Seminar (1-0)

Conferences and discussions of various topics in mathematics and statistics by faculty, graduate students, and outside speakers. Required of all graduate students during each semester of full-time enrollment. May not be counted more than once toward the degree requirement.

5328 Introduction to Statistical Analysis (2-3)

Fundamental techniques for statistical data analysis, including basic probability concepts, inference about the means and variances of two populations, analysis of variance and covariance, least squares and logistic regression, categorical data analysis, nonparametric tests and experimental design. Emphasis will be placed on analysis of biological and other data sets using statistical software packages, checking validity of modeling assumptions, and alternatives when modeling assumptions are not satisfied. Computer simulations are used to illustrate concepts such as power and confidence level. Open to students of all disciplines. *Prerequisites:* STAT 2380 and STAT 2182 each with a grade of "C" and instructor approval. Laboratory fee required.

5336 Categorical Data Analysis (3-0)

Analysis of multifactor contingency tables: table structure, summary measures of association, goodness-of-fit and independence tests, exact tests for small samples. Generalized linear models: logit, probit and loglinear models, estimating model parameters, model selection and checking. Emphasis will be placed on application of these techniques to analyze biological data. *Prerequisite:* STAT 5328 with a grade of "C" or better, or equivalent.

5354 Post-Genomic Analysis (2-3)

Extraction and confirmation of information from entire and partially assembled genome sequences based on experimental and statistical analysis. Includes the experimental design, application, and data analysis of DNA arrays, SNPs, and applied proteomics in the identification and verification of expressed genes of interest. (Same as BINF 5354 and BIOL 5354. Credit cannot be earned for more than one of BINF 5354, BIOL 5354, and STAT 5354). *Prerequisite:* Department approval. Laboratory fee required.

5370 Special Topics (3-0)

Various topics not included in regular course will be discussed. May be repeated once for credit as the topics vary. Prerequisite: Instructor approval.

5380 Mathematical Statistics I (3-0)

The probabilistic foundations of mathematical statistics. Probability spaces, random variables, univariate and multivariate probability distributions, conditional distributions, expectation, generating functions, multivariate transformations, modes of convergence, and limit theorems. *Prerequisite:* STAT 3330 or its equivalent as approved by instructor.

5381 Mathematical Statistics II (3-0)

A continuation of Mathematical Statistics I. Parametric statistical models, sufficiency, exponential families, methods of estimation, comparison of estimators, confidence intervals, hypothesis testing, optimal tests, likelihood ratio tests, large sample theory. *Prerequisite:* STAT 5380 with a grade of "C" or better.

5385 Statistics in Research (3-0)

An introduction to statistical modeling of a univariate response conditional on a test of explanatory variables. Classical formulation of multiple linear regression and analysis of variance. Some discussion of experimental design from power considerations. Selected topics from generalized linear models, nonparametric regression, and quasi-likelihood estimation. Emphasis is on model building, fitting, validation, and subsequent inferences. Analysis of real data using major statistical software packages. *Prerequisites:* MATH 3323 and STAT 4380 each with a "C" or better or instructor approval.

5386 Stochastic Processes (3-0)

Random walks, discrete time Markov chains, and Poisson Process. Further topics such as continuous time Markov chains, branching processes, renewal theory, and estimation in branching processes. *Prerequisites:* (1) MATH 4341 or MATH 5321, and (2) STAT 3330 or STAT 5380 each with a grade of "C" or better.

5388 Multivariate Data Analysis (3-0)

Statistical analysis of a multivariate response. Multivariate multiple linear regression, principal components, factor analysis, canonical correlation, and discriminant analysis. Applications with the use of statistical packages will be considered. *Prerequisite:* STAT 5385 with a grade of "C" or better, or equivalent.

5390 Nonparametric Statistics (3-0)

Distribution-free statistical methods; nonparametric one and two sample tests and analysis of variance; goodness-of-fit tests; nonparametric measures of association; and robust procedures. *Prerequisite:* STAT 5380 with a grade of "C" or better, or equivalent.

5391 Time Series Analysis (3-0)

Time domain and frequency domain aspects of discrete time stationary processes, correlation functions, power spectra, filtering, linear systems, and arma models for non-stationary series. An introduction to the analysis of multiple time series. Some use of statistical software will be included. *Prerequisite:* STAT 5380 with a grade of "C" or better.

5392 Statistical Computing (3-0)

A study of stochastic simulation and select numerical methods used in statistical computation. *Prerequisites:* MATH 4326 and STAT 4380 each with a grade of "C" or better, or equivalent and a high-level programming language.

5396 Graduate Research (3-0)

A written report on an appropriate subject in mathematics or statistics is required. May not be counted towards the 24 hours of course work in the thesis option, but may be substituted for three hours of thesis credit. May not be repeated for credit. *Prerequisite:* Instructor approval.

5398 MS Thesis (0-0-3)

Initial work on the thesis.

5399 MS Thesis (0-0-3)

Continuous enrollment required while work on thesis continues. *Prerequisites:* STAT 5398 with a grade of "C" or better and department approval.



Physics

210 Physical Science
(915) 747-5715
physics@utep.edu

CHAIRPERSON: Jorge A López

GRADUATE FACULTY: Baruah, Botez, Castro-Colin, Durandurdu, Fitzgerald, Hagedorn, Hamed, López, F. Manciu, M Manciu, Ravelo, Saez, Suskavcevic

The Department of Physics offers studies leading to the degree of Master of Science in Physics with experimental and/or theoretical physics research in atmospheric physics, biophysics, computational physics, material science, geophysics, medical physics, nuclear, and physics education, and surface physics. Through a cooperative program with the Geological Sciences Department, the Master of Science in Geophysics is offered. For details, students should contact the Graduate Advisor of the Physics Department.

General Departmental Requirements

The normal prerequisite to graduate studies in the Department of Physics is the bachelor's degree in physics with a "B" average in physics courses taken at the undergraduate level. The bachelor's degree course work should include advanced undergraduate courses in Mechanics, Electromagnetics, Modern Physics, Quantum Mechanics, Thermal Physics, and advanced laboratory practice. Any deficiency must be removed before the petition is made for candidacy for the MS degree.

Master of Science in Physics

The department offers a program of courses and research leading to the MS degree in physics. Two routes are available. Plan 1 requires 30 semester hours of credit: 24 hours of course work plus a 6-hour thesis (PHYS 5398 and PHYS 5399). Plan 2 requires the favorable recommendation of the Physics Department Graduate Studies Committee and 36 hours of course work including the successful completion of a research problem (PHYS 5391) with a written report submitted to the department.

Requirements for Plan 1 are a minimum of 21 semester hours of graduate work including thesis. Specific courses required are PHYS 5321, PHYS 5325, PHYS 5341, PHYS 5361, PHYS 5365, PHYS 5371, PHYS 5398, and PHYS 5399.

Requirements for Plan 2 are a petition stating the reason for the alternate route and a minimum of 27 semester hours of graduate work. Specific courses required are PHYS 5321, PHYS 5325, PHYS 5341, PHYS 5361, and PHYS 5391.

Students must have their course program approved by the graduate advisor each semester. The student will choose, in consultation with the graduate advisor, a chairperson of the research committee and at least two additional committee members, who will supervise the thesis or research problem. One member of this committee must be from outside the Physics Department. These choices should be made and approved by the department Graduate Advisor and by the Graduate School before the student has completed two semesters of graduate work.

The candidate for the MS degree in Physics may have no more than two grades of "C" for courses used to fulfill the requirements of the degree and must pass a final examination, which will include an oral defense of the thesis or research problem.

Master of Science in Geophysics

Physics graduate students may elect to obtain the MS degree in Geophysics. This degree requires 30 semester hours including a six-hour thesis. A minimum of 21 hours must be at the graduate level or above. For physics students, specific courses required are PHYS 5321, PHYS 5325, PHYS 5341, PHYS 5398, and PHYS 5399. At least 12 hours of approved course work must be selected from the Geology-Geophysics courses offered by the Geological Sciences Department. All physics graduate students with deficiencies in Geology should consult the Graduate Advisor in the Department of Geological Sciences about the development of an individualized plan to remedy such deficiencies.

Thesis supervisory committees will have at least two geophysics representatives from the Geological Sciences Department.

Physics (PHYS)

For Undergraduate and Graduate Students

A maximum of 6 semester hours of the following undergraduate courses in physics may, with the approval of the graduate advisor, be counted toward an MS in Physics. (An asterisk indicates that the course will only be approved in exceptional cases.)

3243 Advanced Laboratory Practice

3323 Physical Optics

***3325 Survey of Modern Physics**

***3331 Thermal Physics**

***3351 Analytical Mechanics I**

3352 Analytical Mechanics II

***4341 Electromagnetics I**

4342 Electromagnetics II

***4348 Fundamentals of Acoustics**

4355 Introduction to Quantum Mechanics

4356 Atoms, Molecules, and Solids

4357 Relativity, Nuclei, and Particles

For Graduate Students Only

5195 Graduate Seminar (1-0)

May be repeated three times for credit.

5196 Graduate Research in Physics (0-0-1)

5396 Graduate Research in Physics (0-0-3)

5696 Graduate Research in Physics (0-0-6)

This course may be taken as often as needed, but no more than 3 semester credit hours may be applied to satisfy the requirements for the master's degree. A student will receive only an S or U grade except when the student has filed a preliminary degree plan in which this course appears. *Prerequisite:* Graduate Advisor approval.

5320 Kinematics/Dynamics I (2-1)

Students in this course will review vectors, kinematics (linear, 2, and 3-dimensional including uniform circular), Newton's laws of motion, and work. Each topic will be considered both conceptually and mathematically from the dual perspectives of learner and teacher. These dual perspectives imply an emphasis on both content and pedagogical content knowledge. Hands-on inquiry activities and pertinent educational research literature will be employed towards these ends. *Prerequisites:* PHYS 1403 and PHYS 1404 each with a grade of "C" or better and department approval.

5321 Mechanics (3-0)

Lagrange's equations, nonholonomic constraints, Hamilton's principle, two-body central force, rigid body dynamics, Lagrangian relativistic mechanics, Hamilton and Hamilton-Jacobi equations, and canonical transformations. Offered during fall semester. *Prerequisite:* PHYS 3352.

5325 Mathematical Physics (3-0)

Linear systems, special functions, complex variables, and tensor problems in Physics. Offered fall semester.

5330 Kinematics/Dynamics II (2-1)

Students in this course will review the conservation laws (energy, linear and angular momentum), rotational dynamics, simple harmonic motion, equilibrium, and gravitation. Again the participating students will consider both teaching and learning these concepts through inquiry and use of the research literature. *Prerequisites:* PHYS 5320 with a grade of "C" or better and department approval.

5340 Electricity and Magnetism (2-1)

Students will study and learn to effectively teach about electric charges and their interactions, electric fields, electric potential, capacitance, current and resistance, circuits, magnetic fields, induction magnetism of matter, and Maxwell's Equations. *Prerequisites:* PHYS 5330 with a grade of "C" or better and department approval.

5341 Electrodynamics (3-0)

Boundary value problems, polarization and stress tensor. Conservation laws and energy-momentum tensor. Relativistic electrodynamics. Covariant form of field equations. Potentials and gauge invariance. Offered during spring semester. *Prerequisite:* PHYS 4342.

5350 Wave Phenomena and Optics (2-1)

Students will develop an understanding of and ability to teach wave phenomena including sound and light. Geometric optics and wave/particle duality will also be included in this eclectic yet important course. *Prerequisites:* PHYS 5340 with a grade of "C" or better and department approval.

5360 Thermodynamics (2-1)

This course guides students in their studies of the laws of thermodynamics and their statistical foundation. Specific topics include: temperature, heat capacity, heat transfer, heat engines, kinetic theory of gases, states of matter, the connections among the micro and macro properties of matter, phase transformations, and entropy. In an integrated manner, the class will include research related to teaching and learning the mentioned topics. *Prerequisites:* PHYS 5350 with a grade of "C" or better and department approval.

5361 Quantum Mechanics (3-0)

Solution of the Schrodinger wave equation for discrete and continuous energy eigenvalues; representation of physical variables as operators and the matrix formulation of quantum mechanics; approximation methods. Offered during spring semester. *Prerequisite:* PHYS 4356.

5365 Advanced Statistical Mechanics (3-0)

Classical and quantum statistics of systems in equilibrium. Treatment of fluctuations and transport phenomena. Introduction to many-body problems. *Prerequisite:* PHYS 3331 or equivalent as determined by the instructor.

5371 Solid State Physics (3-0)

Electromagnetic, elastic, and particle waves in periodic lattices as applied to the electrical, magnetic, and thermal properties of solids. *Prerequisite:* PHYS 4356 or instructor approval.

5375 Topics in Ultra-High Vacuum Technology and Surface Science (3-0)

This course consists of two parts. The first part will discuss the issues involved in production and measurement of ultra-high vacuum including pumps, gauges, and appropriate UHV materials. The second part of the course will discuss the physical principles underlying surface spectroscopy, including AES, XPS, ESD, LEED, and EELS.

5391 Research Problems in Physics (0-0-3)

Required course for the 36-hour non-thesis option. Requires two copies of a typewritten report. May be repeated for credit; maximum credit allowed six hours. May not be counted as thesis research but may be taken one time as a preparatory investigation course prior to the beginning of thesis research. *Prerequisites:* Submission of the Petition of Candidacy and department approval.

5393 Special Topics in Physics (3-0)

Topics to be announced. May be repeated for credit.

5398 Thesis (0-0-3)

Initial work on the thesis.

5399 Thesis (0-0-3)

Continuous enrollment required while work on thesis continues.

Prerequisite: PHYS 5398.



SCHOOL OF NURSING

- [SCHOOL OF NURSING](#)
- [Master of Science in Nursing](#)
- [Cooperative Ph.D. in Nursing](#)





SCHOOL OF NURSING

The School of Nursing offers a Master of Science in Nursing (MSN) graduate degree and various certificate programs.

Students enrolling in the Master of Science in Nursing degree program may elect options in family nurse practitioner, nursing systems management, women's health care/nurse practitioner or nurse clinician: educator. Registered Nurses may apply for an accelerated RN to MSN program. These nursing degree programs are accredited and qualify students for national certification in their specialty. A Health Care concentration is available with the Master's of Business Administration (MBA) degree offered by the College of Business Administration. Certificate Programs include a nurse educator certificate, an evidence-based practice certificate, a health care leadership and management certificate and a post-masters family nurse practitioner certificate.

Students may also attend classes offered on the UTEP campus to obtain a Master's in Public Health from The University of Texas Health Science Center, Houston.







SCHOOL OF NURSING

1101 N. Campbell, Room 711
(915) 747-8217
son@utep.edu

Dean: Robert L. Anders
PROFESSORS: Adams, Amaya, Anders, Olson, Poss
PROFESSOR EMERITUS: Reynolds
ASSOCIATE PROFESSOR: Fooladi, Martínez
ASSOCIATE PROFESSOR EMERITUS: Lantican
CLINICAL ASSOCIATE PROFESSORS: Lyon, Pierson, Robinson
ASSISTANT PROFESSORS: Edmonds, Lujan, McKee
CLINICAL ASSISTANT PROFESSORS: Farnsworth

The Graduate Program in Nursing is designed to permit students to earn the degree of Master of Science in Nursing. The mission of the School of Nursing is to prepare caring professional nurses to address multiple complex human needs in a binational and multicultural community. The curriculum of the Graduate Program in Nursing prepares professional nurses for advanced leadership through enhanced practice, research, and role expansion. Enhancement of practice occurs through expansion, refinement, and application of knowledge and theory. Research skills are enhanced through opportunities to carry out supervised research projects. Role expansion occurs through advanced practice, education, and management functions relating to health care delivery and increasing professional responsibilities to society.

Graduates have increased autonomy and independence in their practice. They are eligible to apply for certification as advanced practice nurses in a variety of roles and settings.

The degree of Master of Science in Nursing provides the graduate the opportunity to:

1. synthesize theory and concepts from nursing and other disciplines for applications in the care of clients;
2. provide advanced nursing care based upon in-depth client assessment in an area of specialization;
3. evaluate ethical, moral, and legal precepts in client care;
4. design culturally competent interventions based on current, valid evidence;
5. apply research methods to investigate problems that influence advanced nursing care;
6. analyze public policy and issues that affect advanced nursing practice and health care delivery systems;
7. collaborate with other disciplines to provide care in a variety of settings;
8. integrate peer review and/or peer guidance in advanced practice;
9. participate in leadership and development of the profession; and
10. enhance the basis for life-long learning and/or doctoral study.

Master of Science in Nursing

The Graduate Program in Nursing offered by the School of Nursing at The University of Texas at El Paso is fully accredited both nationally and by the State of Texas. The Master of Science degree in Nursing prepares graduates for post-graduate roles in a variety of advanced practice and specialty areas. The options available are family nurse practitioner, nursing systems management, women's health care nurse practitioner, and nurse clinician-educator. Total hours required vary from 33 to 48 semester credit hours. Students should contact the academic advisor for each of these specialties for further course information and program requirements.

Applications and official transcripts are sent to the Graduate School. Final decisions regarding admission are made by the Dean of the Graduate School upon the recommendation of the Graduate Studies Committee within the School of Nursing. Student profiles are evaluated on an individual basis.

Requirements for Admission

1. a. Bachelor's degree from an accredited baccalaureate nursing program in the United States or equivalent education at a foreign institution **-OR-**
 - b. RN-MSN:ADN from accredited Associate Degree program, completion of University bachelor's core courses, completion of NURS 3314 and 4 RN-only courses with a grade of "B" or better, and acceptance into a graduate major (Bachelor's degree not awarded) **-OR-**
 - c. ADN with degree in another field: ADN from an accredited Associate Degree program, official transcripts showing bachelor's degree, and acceptance into graduate major, completion of NURS 3314 and 4 RN-only courses with a grade of "B" or better.
2. Documentation of competency in undergraduate statistics
3. Current Texas licensure, or in a compact state, as a registered nurse; international applicants must be authorized to practice in their own country and have the GSFSN certification.
4. Evidence of current Provider CPR, liability insurance, and health clearance
5. Satisfactory score on TOEFL; score of 213/550 or higher for international applicants whose first language is not English or who have not completed a university degree in the U.S.
6. Demonstration of academic achievement and potential as indicated by upper level undergraduate and/or graduate coursework.
6. Other evidence of background and experience that may be available. Some majors may have additional requirements. Students should contact the Assistant Dean of Graduate Nursing for further information (gradnursing@utep.edu). Applications are considered on an individual basis and are reviewed by the Graduate Studies Committee of the School of Nursing.

Clinical Clearance Requirements for MSN Program

**** Note: Failure to comply with these requirements will result in students having holds placed on registration or being dropped from courses.**

Implementation for all NURSING courses: January 2004.

Documentation of Administrative and Clinical Clearance should be given directly to the Compliance Officer. Health clearances are given to the Student Health Center. Copies will be made for the student record file.

Health Clearance Students who do not have a health clearance will have a hold placed on registration until such time as the clearance is completed. Students who are newly admitted and are to register for the first time should take documentation of the health items directly to the Student Health Center. The Student Health Center will create a file for them so that they may have permission to register and pay fees. No other services may be provided until the student has paid appropriate Student Health Center fees at time of registration.

A. Administrative Clearance:

1. Current Texas RN License

Please submit a copy. Students whose license expires during a clinical semester must present documentation of renewal as soon as received from the BNE. **Students will not be allowed to continue in any graduate courses if the license has expired.**

B. Clinical Requirements:

Students accepted into the Graduate Nursing Program must have in their record proofs of health clearance and other requirements for all graduate courses.

Note: Failure to comply with these requirements will result in students having holds placed on registration or being dropped from courses.

1. Health Clearance: Includes physical exam, lab work and immunizations.

- Up to date health clearance must be documented prior to enrolling in any Nursing classes. Health clearance is done by the **Student Health Center (SHC)**.
- For ongoing students the physical exam, immunizations, and lab work may be done at SHC at reduced rates; check for the fee schedule (747-5624). Students who have had their physical exam, lab work and/or immunizations done by a private physician or through their employers may submit copies to the Student Health Center for review and clearance. The physical examination should be comprehensive and include appropriate age and gender specific screening tests. The name and address of the Health Care Professional who completed the exam should be printed clearly or typed on whatever form is presented.
- Physical Exam
- Immunizations/Tests:
 1. Tetanus/Diphtheria (Td)-within 10 years
 2. MMR (Measles, Mumps, Rubella) Vaccine (at least one dose since 1980 if born after 1956)
 3. Titers Documenting Immunity to:
 - Hepatitis B
 - Rubella
 - Rubella (Measles)
 - Varicella
 4. If needed, based on titer, the following must be completed with a follow up titer documenting immunity:
 - Booster MMR
 - Varicella series
 - Hepatitis series
 5. CBC
 6. Urinalysis
 7. Tuberculosis Screening: PPD yearly (or biannually as required for clinical clearance). For positive PPD or BCG received in the past, the policy of the Center for Disease Control will be followed, which includes a yearly (or biannually as required) TB questionnaire, exam by a Health Care Provider, and, chest x-ray every 5 years, or as indicated.
- **Note: The Student Health Center (SHC) is the only repository for health clearance information.**
- Clearances must be valid through the entire semester for which the student is registering and must be on file 10-14 days PRIOR to the start of the semester. (See Compliance Web Page for deadline dates). Students who are newly admitted and are to register for the first time should take documentation of the health items directly to the **Student Health Center**. The SHC will create a file for them so that they may have permission to register and pay fees. No other services may be provided until the student has paid appropriate SHC fees at the time of registration.

2. Clinical Clearance: The following items are required to be turned into the Compliance Office in the Student Support Center.

- **Cardio Pulmonary Resuscitation (CPR)** certification is required and must be current as indicated by the certifying body. The certification is required and must be current until the end of the semester for which the student is registering. It must be American Heart Association Healthcare Provider or its recognized equivalent. **Students must submit a copy of both sides of the CPR card.** If the CPR expires during a semester, students must renew immediately to avoid being dropped from clinical courses.
- **Professional liability insurance** must be purchased annually during Fall registration. Students beginning in the Spring or Summer semesters must purchase prorated liability insurance. All graduate students enrolling in nursing courses will be required to show evidence of professional liability insurance coverage of at least a minimum amount of \$2,000,000 limit each claim and \$4,000,000 limit aggregate.
- All students are encouraged to maintain an acceptable **health insurance** policy since students are responsible for their own health care costs. A Student Accident and Sickness Insurance Plan is available upon request through the Dean of Students' Office, 102 W. Union.
- **Community-Wide Orientation:** All nursing students must complete the on-line Community-Wide Orientation once each year. The on-line Community-Wide Orientation is at <http://www.epcc.edu/nursing/cwo/0/phi>. Certificate of completion must be submitted to the Compliance Office in the Student Support Center. Graduate students enrolled in the distance education program for Certificates only are exempted from the CWO requirement.

3. Background Check

- Students accepted to the School of Nursing are required to pass a **background check** prior to matriculation. This is required by the area agencies in which clinical rotations take place and is also a licensure requirement by the Texas Board of Nursing. Application forms are available through the College of Health Sciences student Support Office.

4. Drug Screening

- Students accepted to the School of Nursing are required to pass a drug screen prior to matriculation. This is required by the area agencies in which clinical rotations take place. Application forms are available through the College of Health Sciences Student Support Office.

Degree Requirements for the Master of Science in Nursing

The School of Nursing attempts to accommodate flexibility in course offerings with respect to weekend, evening, and summer classes. Courses with enrollment of less than five individuals are subject to cancellation.

Graduate students must maintain a GPA of 3.0 ("B" average) in order to remain in good academic standing. Additionally, any graduate nursing student achieving less than a B in any of the Graduate Core or Advanced Practice Core courses must repeat the course and earn a grade of B or better. *Students earning two "C" grades in any graduate nursing course will be dismissed from the Graduate Nursing Program. Students earning a grade of "D" or "F" in any graduate nursing course will be dismissed from the Graduate Nursing Program.* Both thesis and non-thesis options are available in some majors, see degree plan for selected majors.

Those students who elect the thesis option must complete an oral defense. The research proposal and pilot study completed in previous courses may be used as the basis for the thesis project. Students electing the non-thesis option must successfully complete an oral comprehensive examination at the end of their coursework.

All degree requirements for the MSN must be completed within six years.

Graduate Core Hours (9 Semester Credit Hours)

- NURS 5310 Nursing Theories and Processes
- NURS 5370 Research Methods I
- NURS 5338 Health Law, Policy, and Ethics

Advanced Practice Core Courses (NP and NCE Majors - 9 Semester Credit Hours)

- *NURS 5303 Advanced Health Assessment
- NURS 5319 Advanced Pathophysiology
- NURS 5362 Pharmacotherapeutics

Role Courses (Clinical Majors - 5 Semester Credit Hours)

- NURS 5254 Advanced Practice Nursing Role
- *NURS 5356 Nursing Preceptorships

Thesis (9 Semester Credit Hours)

- NURS 5371 Research Methods II
- NURS 5398 Thesis
- NURS 5399 Thesis

Non-Thesis

See degree plan for selected major.

** **Note:** Some degree plans do not include electives. Thesis students in those degree plans will take more than the minimum hours specified in their major.

Majors

Family Nurse Practitioner (48 Semester Credit Hours)

Graduate Core Courses (9 Semester Credit Hours)

Advanced Practice Core Courses (9 Semester Credit Hours)

Major Courses (28 Semester Credit Hours)

- *NURS 5206 Primary Care Practicum I
- *NURS 5207 Primary Care Practicum II
- *NURS 5208 Primary Care Practicum III
- NURS 5307 Primary Care I
- NURS 5308 Primary Care II
- NURS 5309 Primary Care III
- NURS 5357 Perspectives on Border Health
- NURS 5672 Advanced Practice Clinical I
- *NURS 5472 Advanced Practice Clinical II

Role Courses (2 Semester Credit Hours)

- NURS 5254 Advanced Practice Nursing Role

Nursing Systems Management (33 Semester Credit Hours)

Graduate Core Courses (9 Semester Credit Hours)

- NURS 5310 Nursing Theories and Processes
- NURS 5338 Health Law, Policy and Ethics
- NURS 5370 Research Methods I

Major Courses (18 Semester Credit Hours)

- NURS 5300 Organization Theory and Culture
- NURS 5335 Management Roles and Operations
- NURS 5337 Health Care Financial Management
- NURS 5365 Managing Health Care Outcomes

NURS 5365 Managing Health Care Outcomes

NURS 5366 Managing Diverse Work Teams

*NURS 5339 Nursing Management Residency

Electives (6 hours Interdisciplinary Electives)

Thesis Option (9 Additional Semester Credit Hours)

NURS 5371 Research Methods II

NURS 5398 Thesis

NURS 5399 Thesis

Non-Thesis Option (Oral Comprehensive Exam)

Women's Health Care/Nurse Practitioner (48 Semester Credit Hours)

Graduate Core Courses (9 Semester Credit Hours)

Advanced Practice Core (9 Semester Credit Hours)

Major Courses (24 Semester Credit Hours)

NURS 5254 Advanced Practice Nursing Role

NURS 5351 Women's Health Care I

NURS 5356 Nursing Preceptorship

NURS 5552 Women's Health Care II

NURS 5553 Women's Health Care III

NURS 5656 Nursing Preceptorship

Thesis or Non-Thesis electives (6 Semester Credit Hours)

Nurse Clinician (36 Semester Credit Hours)

Graduate Core Hours (9 Semester Credit Hours)

NURS 5310 Nursing Theories and Processes

NURS 5370 Research Methods I

NURS 5338 Health Law, Policy and Ethics

Advanced Practice Core Courses (Clinical Majors-9 Semester Credit Hours)

*NURS 5303 Advanced Health Assessment

NURS 5319 Advanced Pathophysiology

NURS 5362 Pharmacotherapeutics

Nurse Clinician sequence (18 semester credit hours-225 contact hours practicum)

NURS 5322 Roles of the Nurse Clinician

NURS 5337 Health Care Financial Management

*NURS 5365 Managing Health Care Outcomes

*NURS 5423 Evidence Based Practice I

*NURS 5524 Evidence Based Practice II

Thesis option (9 semester credit hours above courses listed)

Non-thesis option-Oral Comprehensive Exam

Nurse Clinician-Educator (36 Semester Credit Hours)

Graduate Core Hours (9 Semester Credit Hours)

NURS 5310 Nursing Theories and Processes

NURS 5370 Research Methods I

NURS 5338 Health Law, Policy and Ethics

Advanced Practice Core Courses (9 Semester Credit Hours)

*NURS 5303 Advanced Health Assessment

NURS 5319 Advanced Pathophysiology

NURS 5362 Pharmacotherapeutics

Nurse Clinician: Educator sequence (18 semester credit hours)

NURS 5345 Curriculum Development

*NURS 5347 Effective Teaching Strategies

NURS 5348 Evaluation of Learning

*NURS 5423 Evidence Based Practice I

*NURS 5524 Evidence Based Practice II

Thesis option (9 semester credit hours above courses listed)

Master's completion degree plans are available in Women's Health Care NP. Post-masters non-degree course work in Family Nurse Practitioner is available. Students should contact the Graduate Nursing Program for additional information.

*Includes a practicum.

Certificate Programs

Post-Masters Family Nurse Practitioner Certificate

For information related to the Post-Masters Nursing Certificate, students should consult the Graduate School section, under Certificates and Non-Degree Programs.

Post-Masters Nursing Certification is available for persons with a Master's degree in nursing who wish to be eligible to take the certification examinations in an advanced practice area for which they were not prepared in their original program. The plan of study will be individualized after review of official transcripts. No degree is awarded; however, awarding of the certificate will be noted on the official transcripts from UTEP. Contact the Assistant Dean for Graduate Education for more information.

Evidence-based Practice Certificate

This post-baccalaureate certificate series is designed for nurses or other health care professionals who desire to increase skills and knowledge in evidence-based practice. Focus is on developing and implementing the evidence-based practice skills necessary to translate research into practice for the overall purpose of safe and effective health care. Nurses completing this certificate program will be eligible to apply for the Nurse Clinician Educator (NCE) Major leading to a Master of Science degree in nursing.

Required Courses:

NURS 5423 Evidence-Based Practice I

NURS 5524 Evidence-Based Practice II

Admission Requirements: Admission to the graduate school as a non-degree nursing (NDNU) graduate student and baccalaureate preparation as a registered nurse; non-nursing majors may enroll with the approval of the Assistant Dean for Graduate Education in Nursing.

Health Care Leadership and Management Certificate

This post-baccalaureate certificate series is designed for nurses or others in healthcare administration or planning to move into an administrative role. Focus is on the development or enhancement of leadership and management skills, especially those related to finance, such as development and managing a budget or identifying critical benchmarks and measuring outcomes. Nurses completing this certificate program will be eligible to apply for the Nursing Systems Management (NSM) major leading to a Master of Science degree in nursing.

Required Courses:

NURS 5335 Management Roles and Operations

NURS 5337 Health Care Financial Management

NURS 5365 Managing Health Care Outcomes

Admission Requirements: Admission to the graduate school as a non-degree nursing (NDNU) graduate student and baccalaureate preparation as a registered nurse; non-nursing majors may enroll with the approval of the Assistant Dean for Graduate Education in Nursing.

Nurse Educator Certificate

This certificate program consists of 3 on-line graduate nursing courses and is designed to address the shortage of nursing faculty in nursing programs and to enhance the skills of practicing nurses as preceptors and facilitators of staff development or providers of patient education. Nurses completing this certificate program will be eligible to apply for the Nurse Clinician Educator (NCE) Major leading to a Master of Science degree in nursing.

Required Courses

NURS 5347 Effective Teaching Strategies

NURS 5345 Curriculum Development

NURS 5348 Evaluation of Learning

Admission Requirements: Admission to the graduate school as a non-degree nursing (NDNU) graduate student or a non-degree graduate student (NDEG) and approval of the Assistant Dean for Graduate Education in the School of Nursing.

Grade Requirement:

Students must earn a "B" or better in each of the 3 courses in order to earn the Graduate Certificate. Single courses may be taken for elective credit, however, the certificate would be granted only on completion of the 9 hour sequence.

Student Employment

Student employment is a personal decision; however, it is up to the student to arrange the work schedule so as not to interfere with classes and clinical practicum requirements. Classes are offered in a variety of time periods throughout the year to assist the students in minimizing conflicts.

Nursing (NURS)

For Graduate Students Only

* **Note:** Numbers in parentheses following course titles are to be interpreted as follows:

Note: Numbers in parentheses following course titles are to be interpreted as follows:

First digit = number of didactic **contact** hours average per week

Second digit = number of in-school laboratory **contact** hours average per week

Third digit = number of off-campus practicum **contact** hours average per week

All numbers are based on a 15-week semester. Courses taught in summer school, compressed or alternate schedule, must meet the same number of **total** hours as if offered on the standard schedule. Actual time per week may vary accordingly.

5194 Independent Study (0-0-1)

5294 Independent Study (0-0-2)

5394 Independent Study (0-0-3)

A course designed by the student to meet an individual learning need. *Prerequisites:* Instructor approval and consent of Assistant Dean of Graduate Education.

5197 Graduate Research (0-0-1)

5297 Graduate Research (0-0-1)

Variable credit for approved research activity. Up to three semester hours may be applied toward degree requirements.

5206 Primary Care Practicum I (0-0-6)

Practice/laboratory component for Family Nurse Practitioner students. Includes practicum. *Prerequisites:* NURS 5307 with a grade of "B" or better.

5207 Primary Care Practicum II (0-0-6)

Practice/Laboratory component that is associated with NURS 5307. Includes practicum. *Corequisite:* NURS 5308. *Prerequisites:* NURS 5106 and NURS 5307.

5208 Primary Care Practicum III (0-0-6)

Practicum/Laboratory component that is associated with NURS 5508. Includes practicum. *Corequisite:* NURS 5309. *Prerequisite:* NURS 5308.

5254 Advanced Practice Nursing Role (2-0-0)

Competence in the domain of the professional role of advanced practice nursing is the focus of this course. Students will develop expertise in articulating the emerging roles of the professional nurse in advanced practice in a variety of clinical settings and examine the legal and ethical implications of advanced practice. *Prerequisite:* NURS 5553 or NURS 5353, with a grade of "B" or better.

5300 Organizational Theory and Culture (3-0-0)

Examination of organizational and management theories and research that guide effective management practice in integrated care delivery systems and managed care settings. Management/organizational theories include adaptation-innovation theory, interpersonal relationship theories, situational leadership, power, change, and conflict. The management process is detailed. Research and theory on diversity, particularly cultural diversity, is integrated into management theory and practice. Organizational culture is viewed as a primary influencer of organizational behavior, dynamics, and management behavior.

5303 Advanced Health Assessment (2.5-0-1.5)

Didactic and clinical experiences that provide students with the knowledge and skills for performing a comprehensive assessment. Obtained data will be used to make a diagnosis of health status leading to the formulation of a clinical management plan. Includes practicum. *Prerequisite:* Department approval. Nursing equipment fee required.

5307 Primary Care I: Family and Women's Health (3-0-0)

This course focuses on family theory and the management of health and illness care for women and their families in the primary care setting. Strategies are presented for providing health care to vulnerable individuals, families, and communities living on the U.S./Mexico border communities. The impact of culture on childbearing and women's health care practices as well as strategies for health promotion and disease prevention are covered. *Corequisite:* NURS 5206. *Prerequisite:* Acceptance into FNP program and department approval.

5308 Primary Care II: Family and Pediatric Health (3-0-0)

This course focuses on family theory and the management of health and illness care for infants, children, and adolescents and their families in the primary care setting. Emphasis is placed on assessment and management of the child as both an individual and a family member. Strategies are presented for providing health care to vulnerable individuals, families, and communities living on U.S./Mexico border communities. The impact of culture on child development, parenting styles, and health care practices as well as strategies for health promotion and disease prevention are covered. *Corequisite:* NURS 5207. *Prerequisites:* NURS 5307 and department approval.

5309 Primary Care III: Family and Adult Health (3-0-0)

This course focuses on the application of family theory to the management of both healthy adults and those with acute and chronic illnesses in primary care settings. The course emphasizes screening for early detection of disease and family support roles in chronic illness. Emphasis is placed on the management of common primary health problems of young, middle-aged, and elderly adults. The delivery of culturally competent primary healthcare interventions for individuals living on the U.S./Mexico border is addressed. *Corequisite:* NURS 5208. *Prerequisites:* NURS 5308 and department approval.

5310 Nursing Theories and Processes (3-0-0)

Focuses on critical analysis of current nursing theories and related nursing process conceptualization with application to selected clients/patients and families. Required for all graduate nursing students. *Prerequisite:* Departmental approval.

5319 Advanced Pathophysiology (3-0-0)

Examines the processes involved in and manifestations of altered physiological functioning across the lifespan. Builds on knowledge of basic physiologic and pathophysiologic processes and is foundational to advanced practice nursing roles. *Prerequisites:* NURS 3313 with a grade of "C" or better or equivalent, and department approval.

5322 Roles of the Nurse Clinician (3-0)

Roles of the nurse clinician in clinical case management, collaboration, consultation, education (patient/staff) and quality improvement in clinical settings. For Nurse Clinician Majors only.

5335 Management Roles and Operations (3-0-0)

Explication of nurse management roles and functions in a variety of health care settings including community settings. Specific operations are discussed including supervision and administration, strategic planning, marketing, policy development, systems analysis, decision support and collective bargaining. Culturally diverse perspectives on management roles and behaviors are applied to work requirements in health care organizations.

5337 Health Care Financial Management (2-0-3)

Basic economic policies related to funding of healthcare of individuals and populations of diverse backgrounds will be discussed as will financial and accounting concepts. Planning, budgeting and controlling process will be analyzed from the perspective of impact on patient populations, programs, units, and organizations. Students will complete a 45 hour practicum project focusing on cost analyses and business plans for a specific patient population, unit or organization.

5338 Health Law, Policy, and Ethics (3-0-0)

Health care policy creates a framework that impacts the delivery of health care services and the ability of the provider to engage in practice to address health care needs. Emphasis is on legal concepts and bioethical principles that shape practice, prevent liability, and assist in public policy development related to the delivery of nursing and health care in various settings. Required for all graduate nursing students. *Prerequisite:* Department approval.

5339 Nursing Management Residency (1-0-6)

Students develop competencies as a nurse manager under the guidance of a preceptor. Focus is on analysis and evaluation of management policies, issues, and challenges to include providing culturally competent care through managing a culturally diverse work force. Synthesizing knowledge from previous courses, students complete a comprehensive assessment of an aspect of the health care organization, design and, where possible, implement change strategies. *Prerequisites:* NURS 5300, NURS 5335, NURS 5337, NURS 5365, and NURS 5366 and a cumulative GPA of 3.0 or better.

5345 Curriculum Development (3-0-0)

Focus on the process and issues of curriculum development, revision, and evaluation related to a variety of nursing educational settings. Addresses the major steps involved in curricular change within the context of societal and health care delivery factors. Provides the foundation for effective educational program implementation. Web-based online course.

5347 Effective Teaching Strategies (3-0-0)

Focuses on curricular implementation in classroom/didactic and clinical settings. Strategies for effective content planning, organization, delivery, and evaluation of the teaching-learning process in nursing education settings. Strategies for developing the educator role included. Web-based online course.

5348 Evaluation of Learning (3-0-0)

This course addresses the context within which the evaluation of learning occurs. The concepts relevant to the structure of evaluation, such as conceptual frameworks, benchmarks and outcomes are presented. Course content addresses the construction and evaluation of teacher-made tests and the assessment of critical thinking in both classroom and clinical settings.

5351 Women's Health Care I (2-0-3)

Primary prevention, health promotion and disease prevention concepts applied in the care of women across the life span. Emphasis on acquisition of skills and transition to the nurse practitioner role. Includes 45 hours of clinical practicum. *Prerequisites:* NURS 5303, NURS 5310, NURS 5319, NURS 5362, and NURS 5370, each with a grade of "B" or better.

5356 Nursing Preceptorship (0-0-9)

5956 Nursing Preceptorship (0-0-27)

Provides the basis for the refinement of advanced practice clinical decision-making skills and role integration for women's health care nurse practitioner students. Practicum only. *Prerequisite:* NURS 5351, NURS 5552 and NURS 5553 with a grade of "B" or better.

5357 Perspectives on Border Health (3-0-0)

Examines issues and challenges in border health care with special reference to the U.S.-Mexico border. Social, cultural, political and economic factors are explored and analyzed in relation to the role of nursing, health care delivery and policy formulation along the border. Community-based and other innovative and indigenous health care strategies and programs are critically evaluated using appropriate research approaches.

5362 Pharmacotherapeutics (3-0-0)

Analysis of pharmacologic fundamentals relating to selection, screening, and use of prescriptive and non-prescriptive drugs throughout the life cycle. *Prerequisites:* NURS 5319 with a grade of "B" or better or equivalent, and department approval.

5365 Managing Health Care Outcomes (2-0-3)

Performance and outcome standards used by industry, regulatory and accreditation bodies are applied to improvement of clinical and administrative outcomes in health care programs and organizations. Measurement and management of individuals and populations of culturally diverse backgrounds are stressed. Evidence-based practice and the relationship of quality improvement to patient care outcomes. Students focus on measurement and management of outcomes through development of a...

and the relationship or quality/performance to cost are core themes. Students focus on measurement and management of outcomes through development or performance improvement project in a clinical setting. 45 hours of practicum during semester. *Prerequisite:* NURS 5370 with a grade of "B" or better.

5366 Managing Diverse Work Teams (3-0-0)

Human resources management in health care systems. Emphasis is on managing diversity in recruiting, interviewing, evaluating, and promoting staff. Laws and regulations related to equal employment opportunity are integrated. Students analyze models and research that foster work team transformations that result in enhanced individual, team and organizational productivity.

5370 Research Methods I (3-0-0)

Focus on the role and process of scientific inquiry with thematic emphasis on theories, techniques, and issues. *Prerequisite:* Department approval.

5373 Advanced Practice Clinical (0-0-9)

Integrates didactic and clinical content into intensive clinical practicum for family nurse practitioner students. *Prerequisites:* NURS 5309 and department approval.

5380 Special Topics in Nursing (3-0-0)

May be repeated as topic varies.

5398 Thesis (0-0-9)

Initial work on the thesis.

5399 Thesis (0-0-9)

Continuous enrollment required while work on the thesis continues.

Prerequisite: NURS 5398.

5423 Evidence Based Practice I (3-0-3)

This graduate level nursing course addresses the integration of transitional research into practice. Focus is on utilizing systematic inquiry to identify, summarize, and appraise best evidence on a selected topic. Participants begin the process of translating research into practice by producing and disseminating a systematic, integrative review of the evidence. Includes 45 clock hours of mentored practicum. *Prerequisites:* NURS 5310 and NURS 5370 each with a grade of "B" or better. NURS 5310 and NURS 5370 may be taken concurrently with NURS 5423.

5472 Advanced Practice Clinical II (0-0-12)

Advanced Practice Clinical II integrates previous didactic and clinical content into intensive family centered clinical practicum for family nurse practitioner students. The majority of student placements are in medically underserved communities. *Prerequisites:* NURS 5106, NURS 5208, NURS 5307, NURS 5308, NURS 5309, NURS 5672 each with a grade of "B" or better

5524 Evidence Based Practice II (3-0-6)

This graduate level nursing course continues the integration of translational research into practice. Focus is on 1) translating a systematic, integrative review of best evidence to change practice and 2) implementing processes to monitor and evaluate the impact of the practice change. Participants continue the process of translating research into practice by completing a practice change project and disseminating results. Includes 90 clock hours of mentored practicum. *Prerequisite:* NURS 5423 with a grade of "B" or better.

5552 Women's Health Care II (3-0-6)

Secondary and tertiary prevention in women with acute and chronic reproductive health problems. Emphasis on collaborative management approaches to attain, regain, and maintain health. Includes 90 hours of clinical practicum. *Prerequisite:* NURS 5351 with a grade of "B" or better.

5553 Women's Health Care III (3-0-6)

Completes the framework for advanced practice nursing in women's health through development of skills in primary care, transcending reproductive care. Focus is on the integration of theories and concepts, policy analysis and evaluation of management protocols for holistic primary care. Emphasis on advanced clinical management and interdisciplinary collaboration. Includes 90 hours of clinical practicum. *Prerequisite:* NURS 5552 with a grade of "B" or better.

5572 Advanced Practice Clinical (0-0-15)

Integrates didactic and clinical content into intensive clinical practicum for Family Nurse Practitioner students. *Prerequisites:* NURS 5309 with a grade of "B" or better.

5573 Advanced Practice Clinical (0-0-15)

This course integrates didactic and clinical content into an intensive clinical practicum for family nurse practitioner students. Includes practicum. *Prerequisites:* NURS 5309 and department approval.

5672 Advanced Practice Clinical I (0-0-18)

Advanced Practice Clinical I integrates previous didactic and clinical content into intensive family centered clinical practicum for family nurse practitioner students. The majority of student placements are in medically underserved communities. *Prerequisites:* NURS 5106, NURS 5208, NURS 5307, NURS 5308, and NURS 5309 each with a grade of "B" or better.



Cooperative Ph.D. in Nursing

Graduate Nursing Program Office
(915) 747-7230

The Ph.D. (formerly a Doctor of Science in Nursing) in Nursing is a cooperative program between the University of Texas at Houston Health Science Center School of Nursing and the School of Nursing at UTEP. The program is 65 credit hours in length. Distance learning and Web technology are used to allow students to take classes in El Paso with only a few trips to Houston per year. Students may also take selected classes at the UT Houston School of Public Health in El Paso and at UTEP. Students should contact the Graduate Nursing Program Office for more information at (915) 747-7230.





INTERDISCIPLINARY PROGRAMS

- [Ph.D. in Environmental Science and Engineering](#)
- [Ph.D. in Materials Science and Engineering](#)
- [MA Leadership Studies & Master of Information Technology](#)
- [Master of Public Administration](#)
- [Graduate Certificate in Intelligence and National Security](#)
- [Graduate School Courses](#)





Interdisciplinary Programs

Ph.D. in Environmental Science and Engineering

Center for Environmental Resource Management
(915) 747-5433
jgardea@utep.edu

PROGRAM DIRECTOR: Barry Benedict
PROGRAM COORDINATOR: Cindy Conroy

The University of Texas at El Paso presents both an extraordinary setting and excellent capabilities for the multi-disciplinary doctoral program in Environmental Science and Engineering. Located on the U.S.-Mexico border and one of the most environmentally-impacted areas of North America, UTEP has established itself as a center of environmental research and development activity, with support from the EPA, the NSF, the Department of Energy, private foundations, and state agencies. With support and coordination from the Center for Environmental Resource Management (CERM), faculty and students from several departments conduct research often in collaboration with local agencies and national laboratories. With the implementation of the North American Free Trade Agreement (NAFTA), the establishment of a new EPA regional office in El Paso and of the joint U.S. and Mexico Border Environmental Cooperation Commission (BECC) in Ciudad Juárez, Mexico, and UTEP's already established base of collaborations with Mexico on environmental problems, UTEP and El Paso have become an internationally recognized source of cutting-edge research, technology, and education.

Requirements for Admission

In addition to Graduate School requirements, students entering the program must have a Master of Science degree or equivalent study in an environmentally related scientific or engineering field. Such fields include but are not limited to chemistry, physics, biology, geology, civil engineering, industrial engineering, electrical engineering, mechanical engineering, and metallurgical engineering. Students are expected to have superior graduate records (GPA > 3.5/4.0) and, for students from countries where English is not the principal language, a minimum TOEFL score of 550. Students must submit at least two letters of reference from individuals qualified to judge their capability to do doctoral-level work. Applicants will be notified of their admission status by the Graduate School.

Degree Requirements

Specific course requirements for each student will be determined by the student's Doctoral Advisory Committee; however, each student must complete at least 60 hours beyond the Master's degree. At least 30 hours are organized course work, which must include certain ESE core courses, including ESE 6306, Principles of Experimental and Engineering Design and ESE 6307, Interdisciplinary Environmental Problem Solving. The balance of the required 30 semester hours of organized course work will be fulfilled by a selection of elective courses. Enrollment of the candidate in research and dissertation courses will complete the remainder of the 60 semester hours.

Prior to taking ESE core courses, all students are generally expected to have had the equivalent of basic courses in biology, chemistry, physical geology, and calculus, including differential equations. All full time students are required to enroll in ESE 6107 during the fall and spring semesters. All students must complete a minimum of 2 hours of ESE 6107. A maximum of six hours of ESE 6107 will count towards fulfilling the requirements of the degree.

Note: All degree requirements must be completed within eight years.

Semester Hour Requirements

| | |
|----------------------------------|-----------|
| Foundation/Leveling Courses..... | as needed |
| ESE Core Course..... | 18 |
| Environmental Project..... | 6 |
| Elective Courses* | 6-12 |
| Research..... | 18-24 |
| Dissertation..... | 6 |

* May include six hours of ESE 6107 and additional core courses, if approved by the student's Doctoral Advisory Committee.

Students are required to pass a qualifying examination based on material from the ESE core courses and any leveling courses they may have taken during the first two semesters of residence. Students are eligible to sit for the qualifying examination a maximum of two times.

All of the core classes are required and the student must obtain a grade of "B" or better in each of the core courses.

Students are encouraged to begin a research germane to their dissertation topic early in the course of study. The student must identify a dissertation supervisor during the first two semesters of full-time or part-time participation in the ESE program. Within this same period, a Doctoral Committee must be formed, a dissertation proposal prepared for review and approval by the student's committee, and an abstract of the proposal distributed to the ESE faculty for comment. Students will not be allowed to register for additional course work until these requirements have been met.

Prior to enrolling in the dissertation courses, each student will take a comprehensive examination administered by the student's Doctoral Advisory Committee. The examination may be written, oral or both. Students are eligible to sit for the comprehensive exam a maximum of two times.

The dissertation must demonstrate the ability to perform independent research and the competence for scholarly exposition. It should present original investigation at an advanced level of a significant problem in environmental science and engineering and should provide the basis for a publishable contribution to the research literature in the field. Students should enroll in ESE 6398 during the first term of dissertation work and ESE 6399 each term thereafter. Each doctoral candidate must successfully defend the dissertation

before the Doctoral Advisory Committee.

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

Environmental Science and Engineering (ESE)

The ESE core consists of ESE 6301, ESE 6303, ESE 6402, ESE 6404 and ESE 6405. Required course work includes ESE 6306, and ESE 6307. ESE 6398 and ESE 6399 must also be completed for the degree.

6107 Graduate Seminar (1-0)

Presentation and discussion of topics in environmental science and engineering by graduate students, faculty, and visitors. *Prerequisite:* Permission of the ESE Program Director.

***6301 Environmental Law and Policy (3-0)**

Focus on the formulation, implementation, enforcement, and evaluation of environmental policies. A review of the legal and administrative environmental systems of both the United States and Mexico will be included. Questions of environmental risk and equity will be addressed. *Prerequisite:* Enrollment in the ESE program or permission of the ESE Program Director.

***6303 Transport, Fate, and Treatment of Contaminants in the Environment (3-0)**

Review of transport phenomena active in environmental systems. Fluid flow and contaminant transport in surface waters, groundwaters, the vadose zone, and the atmosphere. Multimedia contaminant transport. Relationship between transport properties and site remediation. Application of computer models for environmental transport. *Prerequisite:* Enrollment in the ESE program or permission of the ESE Program Director.

***6306 Principles of Experimental and Engineering Design (3-0)**

Students with different backgrounds examine experimental and engineering design principles with special application to the solution of environmental problems. Student teams will be formed to define an interdisciplinary environmental problem of regional interest. *Prerequisite:* Enrollment in the ESE program or permission of the ESE Program Director.

***6307 Interdisciplinary Environmental Problem Solving (3-0)**

Students with different backgrounds will work in teams to examine interdisciplinary environmental issues specific to the border region and prepare a group report with recommendations which consider scientific, political, economic,

and social aspects. *Prerequisites:* Enrollment in the ESE program and ESE 6306 or permission of the ESE Program Director.

6396 Doctoral Research (0-0-3)

Directed research on topics in environmental science and engineering related to the dissertation or conducted as component of the student's overall graduate program. *Prerequisite:* Admission to the ESE program or permission of the ESE Program Director.

6398 Dissertation (0-0-3)

Taken when preparation of the dissertation is begun. One enrollment required. *Prerequisites:* Admission to the ESE program and passage of the comprehensive examination.

6399 Dissertation (0-0-3)

Taken continuously during preparation of the dissertation.

Prerequisites: Admission to the ESE program and ESE 6398.

***6402 Environmental Chemistry (3-3)**

Review of classification and properties of chemical materials of environmental interest. Study of chemical principles pertaining to acidity, basicity, redox properties, solubility, partitioning and transport in the environment. Chemical reactions in aqueous, soil/sediment and atmospheric phases. Environmental analytical techniques. The laboratory emphasizes analytical protocols utilized in environmental laboratories. *Prerequisites:* Enrollment in the ESE program or permission of the ESE Program Director and one year of introductory work in chemistry.

***6404 Environmental Biology (3-3)**

An examination of the theoretical and experimental aspects of the relationship between biological and physical environments at the individual, population, community, and ecosystem levels. This includes microbial ecology and biogeochemical cycling of nutrients. *Prerequisites:* Enrollment in the ESE program or permission of the ESE Program Director and one year of work in introductory biology.

***6405 Environmental Geoscience (3-3)**

Application of earth science principles and processes to environmental issues. Topics will include fundamentals of physical geology and their applications to geohazards, engineering geology, surface and ground water, erosion, and environmental geochemistry. Atmospheric and climate topics will include global change issues. Labs will feature hands-on experience with earth materials, maps, analytical techniques, and environmental problem solving. *Prerequisites:* Enrollment in the ESE program or permission of the ESE Program Director and one semester of work in physical geology.

*** Core Courses**





Ph.D. in Materials Science and Engineering

Materials Research and
Technology Institute (MRTI)
M-201 Engineering
(915) 747-5468
fekberg@utep.edu

PROGRAM DIRECTOR: Lawrence Murr

The field of materials sciences and engineering is central to the technological, industrial, and economic development of Texas, the United States, Mexico, and other industrialized countries. The UTEP Ph.D. program is a multi-disciplinary program to prepare scientists and engineers to contribute to this vital field, with a range of skills linking structure, properties, synthesis and processing, and performance of materials. Students develop a research focus in a specialized area using one or more of these skills to study some class or classes of materials, including metals, polymers, ceramics, semiconductors, superconductors, composites, and other materials systems.

Students in the program take a common core:

- Advanced Concepts in Materials Sciences and Engineering
- Materials Applications and Engineering
- Microchemical and Microstructural Characterization of Materials
- Instrumentation and Modeling Short Courses
- Doctoral Research Symposium I & II

Requirements for Admission

Admission to the Ph.D. program in materials science and engineering with a BS or MS degree in a related field (Physics, Chemistry, Electrical and/or Electronic Engineering, etc.) requires a minimum 3.0 GPA and a minimum TOEFL score of 550 for applicants from countries where English is not the principal language. GRE scores will also be considered for all applicants.

Requirements for Degree

All students who enter the program are required to take 4 core courses and three hours of research symposia for a total of 17 credit hours. Students who enter with an M.S. degree may receive credit for up to 30 credit hours. The core and elective courses (discussed below) are traditional lecture or seminar courses. The student will take a minimum of 6 credit hours of Doctoral Dissertation, and additional credit hours of Advanced Study, Graduate Research, Independent Study, or Dissertation. A minimum of eighty-five (85) credit hours are required.

The number and subject area of elective courses in advanced topics are determined by the student and his/her research advisor in consultation with the student's Dissertation Committee; although generally 12 hours of advanced topics (beyond the core) will be required. Depending on the background and preparation of the student, and/or the nature of the student's research, the student's mentor and/or the Dissertation Committee, acting together with the student, may suggest additional courses not chosen from the list of electives.

The UTEP MASE program currently does not offer a terminal Masters degree. However, MASE Ph.D. students may choose to complete a Masters degree in an appropriate science or engineering department, or in IVSIS, Masters Degree in Interdisciplinary Studies. Requirements for these M.S. degrees can be found elsewhere in the catalog.

Students are required to pass an oral Qualifying Examination administered by their Research Committee. This examination consists of defending a written Dissertation Proposal and answering questions of either a broad or specific nature in relationship to preparation to conduct dissertation research. This examination is usually administered after a minimum of 2 semesters of work. Students may not register for dissertation credits until after the Qualifier Examination has been passed. Research undertaken prior to passing the examination can use appropriate graduate research projects or independent study courses.

At the conclusion of the research program, the student will make a public presentation of the dissertation. This will also constitute a Final Oral Examination or Dissertation Defense with questions from both the Research (Dissertation) Committee and the general public.

A copy of the dissertation in PDF or Word electronic format must be submitted to the Graduate School for format check prior to the scheduled defense date. The dissertation, including an abstract not to exceed 350 words, must be prepared according to the Graduate School's thesis and dissertation guidelines available at the Graduate School website. The student will receive email confirmation from the Graduate School after the format has been approved. The final Graduate School approved dissertation must be submitted to the Graduate School in PDF electronic format on a CD in a case by the deadline as published in the Class Schedule along with a hard copy of the signature page with original signatures of the dissertation committee members. The signature page must be included in the PDF file but it should not be signed.

Doctoral candidates are also required to submit the Graduate School approved dissertation at the University Microfilms International website for on-line publication, <http://dissertations.umi.com/utep>. Dissertations are regarded as publications and will be made public once they are approved and submitted. On-line publication does not preclude subsequent publication of the dissertation, in whole or in part, as a monograph or in a journal. Copyright at the author's expense may be arranged through University Microfilms International. In order to protect patent or any other rights, the Graduate School may be requested to delay publication for a period of one year. This request must be supported by a written recommendation of the supervising professor.

Materials Science and Engineering (MASE)

5340 Advanced Failure Analysis (3-0)

An advanced study of structural failure processes to include topics in fracture mechanics, fatigue, and environmental assisted cracking. Analysis of failures using metallographic, electron microscopy, and microanalytic techniques will be covered. Fracture of specific materials: steels, nonferrous alloys, composites, and nonmetallics will be included.

5343 Advanced Materials and Composites (3-0)

Properties and structures of composite materials and design of composite systems to yield desired combinations of properties. Metal, ceramic, and polymer composite systems as well as high-performance alloy systems or microcomposites. Applications of materials and composite fundamentals to manufacturing and processing. Offered in alternate years. *Prerequisite:* MME 5401, MME 5303 or equivalent, or instructor approval.

5344 Interfacial Phenomena in Materials Systems (3-0)

Thermodynamics of solid interfaces and interfacial equilibria. Interfacial free energy concepts and measurements. Structure of interfaces: solid surfaces, grain boundaries, phase boundaries, and system interfaces. Properties of interfaces and their role in materials performance. Offered in alternate years. *Prerequisites:* MME 5401, MME 5303, MME 5304, and MME 5305 or equivalent, or instructor approval.

5372 Advanced Optoelectronic Devices (3-0)

Theory and application of advanced photonic devices including injection lasers, photodiodes, infra-red detectors, solar cells, and electroluminescent displays. *Prerequisite:* MASE 5371 or equivalent.

5390 Special Topics in the Chemistry of Materials (3-0)

Synthesis of polymers and advanced materials by condensation, addition, and other types of polymerization. Solution methods of characterization. Solid state properties and their structural basis. May be repeated for credit when topic varies. *Prerequisite:* Instructor approval.

5392 Special Topics in Materials Engineering (3-0)

Selected topics in materials engineering including advanced materials and processes, structure and properties of advanced materials, advanced materials performance, etc. May be repeated for credit when topic varies.

***6103 Instrumentation and Modeling Short Courses (0-1)**

Each short course will provide detailed instruction and hands-on experience in the use of one instrument (TEM or SEMEDS, or XP/JLEEDS/Auger, etc.) or a cluster of related instruments (DTA and DSC and DMA, for example) or an advanced software package for modeling or simulation of materials.

6191 Individual Studies (0-0-1)

6291 Individual Studies (0-0-2)

6391 Individual Studies (0-0-3)

Independent studies in materials science and engineering.

***6195 Doctoral Research Symposium I & II (0-0-1)**

MASE 6195 involves formal presentations and discussion by research students in the program (first year). MASE 6196 taken in subsequent semesters or years, where students make presentations and occasionally outside speakers make presentations on related topics to materials science and engineering. *Prerequisite:* Take MASE 6195 first, then MASE 6196 at least twice.

***6196 Doctoral Research Symposium I & II (0-0-1)**

MASE 6195 involves formal presentations and discussion by research students in the program (first year). MASE 6196 taken in subsequent semesters or years, where students make presentations and occasionally outside speakers make presentations on related topics to materials science and engineering. *Prerequisite:* Take MASE 6195 first, then MASE 6196 at least twice.

6294 Graduate Research Projects (0-0-2)

6394 Graduate Research Projects (0-0-3)

6390 Contemporary Topics in Materials Science and Engineering (3-0)

Selected topics from materials science and engineering. Course may be repeated twice for credit as topic varies.

6398 Dissertation (0-0-3)

Initial work on the dissertation.

6399 Dissertation (0-0-3)

Continuous enrollment required while work on the dissertation continues.

Prerequisite: MASE 6398.

***6400 Advanced Concepts in Materials Science and Engineering (4-0)**

A blend of topics on contemporary solid state physics and chemistry emphasizing structure and properties including processing (synthesis) and performance, and illustrated by various classes of materials: structural, electronic, magnetic, photonic, and superconducting. Fundamental issues and applications will include: crystal structure and crystal chemistry; disorder/order imperfections; phase equilibria, phase diagrams, phase transformation; reaction rates, kinetics, thermodynamics; microstructures in processing and performance; materials design/materials by design.

***6401 Materials Applications and Engineering (3-1)**

A series of investigations in the application of scientific and engineering principles to practical materials systems. The course emphasizes the complexity of successful materials applications, and the interplay between processing and performance. Three to four investigations will be performed during the semester. Each investigation begins with introductory reading, discussion, and planning (including application of qualitative and quantitative experimental design concepts). Then the class performs process experiments, followed by characterization of product microstructure and performance. Students will be evaluated on the basis of their team contributions (to discussions, design of investigations, performance of the investigations, and communication of the results) as well as their individual knowledge and understanding of fundamental principles and techniques (as proven on tests).

***6402 Microchemical and Microstructural Characterization of Materials (3-3)**

The structure and composition of materials can be investigated at a variety of levels utilizing a variety of analytical techniques. It is imperative that the principles and applications of a range of these techniques be presented to students examining classes of materials. Techniques which can allow microscopic and macroscopic characterization should be presented as well as techniques for bulk, surface, and related interfacial characterization. This course will focus on a variety of microscopy and spectrometry techniques—optical, electron, acoustic, and ion. As many microanalysis areas as possible will be demonstrated by having students visit facilities on the campus which constitute a materials characterization and analysis network. Principal microanalysis areas will include: x-ray diffraction, electron microscopy (scanning and transmission), electron probes, surface and near surface microanalysis, and optical and acoustic microscopy.

* Core





Master of Arts in Interdisciplinary Studies (MAIS)

See information regarding this degree in the College of Liberal Arts section under Liberal Arts Interdisciplinary Studies.

Master of Arts in Latin American and Border Studies

See information regarding this degree in the College of Liberal Arts section under Liberal Arts Interdisciplinary Studies.

Master of Arts in Leadership Studies

Institute for Policy and Economic Development
414 Kelly Hall
(915) 747-7974

DIRECTOR: Dennis Soden
COORDINATOR: Debra Little, J. Scott McDonald
GRADUATE FACULTY: McDonald, Posthuma, Soden, Weaver, Witherspoon
CONTRIBUTING FACULTY: Bretting, Cuadrado, Dalton, Erbert, Pena
ADJUNCT FACULTY: Conary, Little, McElroy, Olmedo

The Master in Leadership Studies (MLS) is a program preparing its graduates for positions of responsibility in education, military, private industry, government and the not-for-profit sectors dedicated to the improvement of both the substance and processes of leadership in a variety of roles. The Master in Leadership Studies degree provides professional education for students interested in leadership careers. The interdisciplinary program is designed to stress the knowledge, skills, values, and behaviors essential to the successful organizational leader. Some flexibility in curriculum is permitted to meet the diverse educational needs of students at different points of time in their careers and in need of specialization in light of their career goals. The curriculum components are designed to produce professionals capable of intelligent and creative analysis, communication, and action in leadership functions.

Requirements for Admission

1. Submission of transcripts according to the requirements of the Graduate School.
2. Bachelor's degree from an accredited college or university.
3. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework.
4. A one- to two-page statement of purpose that addresses educational and career goals and reasons for pursuing a MLS degree.
5. Three letters of recommendation from instructors, job supervisors or others in a position to evaluate your ability to succeed in a MLS program.
6. For international students, a score of 600 on the TOEFL and an in-person or telephone interview.

Requirements for the MLS Degree

Completion of at least 33 semester hours of course work consisting of the following:

1. At least 24 hours of courses in the theoretical, methodological, and technical aspects of Leadership studies.
 - MLS 5300 Essentials of Leadership
 - MLS 5310 Assessing and Evaluating Leadership: Leadership Colloquium
 - MLS 5320 Leadership Principles and Practice: A Management Perspective
 - MLS 5330 Leadership Principles and Practice, Leading Change: A Communication Perspective
 - PAD 5350 Organizational Theory & Behavior
 - PAD 5300 Research Methods
 - PAD 5351 Applied Statistics for Public Administrators
 - MLS 5350 MLS Leadership Studio – Capstone
2. Completion of an additional 9 hours of approved courses in an area of concentration developed by the student. Areas of concentration may be chosen from any area of the curriculum, to include, but not limited to, Financial Management, Human Resource Management, Public Administration, Economic Development, Communication, Health Administration, Border and International Administration, Not-for-Profit Administration, and Urban and Regional Planning. No more than 3 hours of electives can be at the undergraduate level in courses approved for graduate-level credit.
3. The final program requirement is completion of the capstone course, MLS 5350 Leadership Studio - Capstone (3 semester hours).

Master of Arts in Leadership Studies Concentrations

Examples of possible concentration areas consisting of three courses (9 credit hours) are:

A. Public Administration

Students selecting the Public Administration concentration must elect three of the following courses:

PAD 5310 Public Policy Process and Institutions

| | | |
|-----|------|---|
| PAD | 5311 | Economic Analysis for Public Administrators |
| PAD | 5352 | Public Budgeting and Financial Management |
| PAD | 5353 | Human Resources Management |
| PAD | 5364 | Public Participation and Democratic Process |
| PAD | 5365 | Policy Analysis and Decision Making |

B. Economic Development

The Economic Development concentration consists of two required courses and one elective. Students selecting this concentration must also have completed all of the prerequisite coursework in micro/macro-economics and undergraduate statistics.

| | | |
|------|------|--|
| PAD | 5368 | Regional Economic Development: Research Methods (Required) |
| PAD | 5369 | Economic Impact Models (Required) |
| ECON | 3334 | Regional Economics |
| ECON | 3335 | Urban Economics |
| REST | 3300 | Real Estate Principles |
| PAD | 5360 | Urban Administration |

C. Communication

Students selecting the Communication concentration must elect three of the following courses:

| | | |
|------|------|--|
| COMM | 5337 | Seminar in Organizational Communication (Any topic) |
| COMM | 5337 | Seminar in Organizational Communication (May be repeated for credit when topic varies) |
| COMM | 5335 | Seminar in Intercultural/International Communication |
| COMM | 5332 | Seminar in Contemporary Rhetoric or |
| COMM | 5362 | Organizational Communication |

D. Health Administration

Students selecting the Health Administration concentration must:

Take at least one course from the following context courses:

SOCI/

| | | |
|------|------|--|
| ANTH | 4346 | Health and Illness in Cross-Cultural Perspective |
| SOCI | 5340 | Seminar in Demography |
| SOCI | 5341 | Special Graduate Topics: Medical Sociology |
| SOCI | 5362 | Seminar in Health Services Delivery |

Take at least one course from these planning and administration courses:

| | | |
|------|------|--|
| HSCI | 5356 | Planning and Administering Health Promotion Programs |
| HSCI | 5359 | Grant Writing in Health Professions |
| PSCI | 5340 | Management and Health Systems in Physical Therapy |
| NURS | 5335 | Management Roles and Operations |
| NURS | 5337 | Health Care Financial management |
| NURS | 5338 | Health Law, Policy and Ethics |
| NURS | 5365 | Managing Health Care Outcomes |

Take at least one course from the following list, but not any course counted in other categories.

SOCI/

| | | |
|------|------|--|
| ANTH | 4346 | Health and Illness in Cross-Cultural Perspective |
| SOCI | 5340 | Seminar in Demography |
| SOCI | 5341 | Special Graduate Topics |
| SOCI | 5362 | Seminar in Health Services Delivery |
| HSCI | 5356 | Planning and Administering Health Promotion Programs |
| HSCI | 5359 | Grant Writing in Health Professions |
| PT | 5340 | Management and Health Systems in Physical Therapy |
| NURS | 5335 | Management Roles and Operations |
| NURS | 5337 | Health Care Financial Management |
| NURS | 5338 | Health Law, Policy and Ethics |
| NURS | 5365 | Managing Health Care Outcomes |

E. Border and International Administration

The Border and International Administration concentration consists of two required courses and one elective. The two required courses are:

- PAD 5355 Comparative Public Administration
- POLS 5344 Seminar in Border Theory

The one elective may be selected from the following course options:

- ECON 5368 Border Economics
- LABS 5301 Issues in Border Studies
- POLS 5331 Seminar in International Organizations and Law
- POLS 5336 Seminar in Southwestern Border Politics
- POLS 5338 Seminar in International Political Economy
- SOCI 5355 U.S.-Mexico Borderlands in Change
- SOCI 5341 Special Topics Criminal Justice on the U.S.-Mexico Border

Graduate Certificate in Leadership Studies

The certificate in Leadership Studies is an interdisciplinary non-degree program that builds upon leadership courses and research in order to provide relevant practice for contemporary work environments. The program of study for the certificate in Leadership Studies has a research/practice format. All students take core leadership courses covering the topics of contemporary leadership theories/concepts, principles, and practices. Ethics is prominent in this core, not only as an individual topic or as a stand-alone topic, but also woven throughout the course of study, reflecting its pervasiveness in the demands and needs of today's societies and organizations.

The certificate program is designed for those employed in leadership positions and students interested in career development utilizing core knowledge related to leadership skills, theory, management, communication, and organizational theory. Government employees and professionals in the military, private, non-profits, and public organizations, especially for those in community and economic development agencies will find value in this program.

For the certificate, five courses (15 semester hours) are required of all students. Each non-degree seeking student will undertake a capstone course that will involve demonstrating leadership competency in a professional format.

Certificate Admission Requirements

The certificate program is designed for students holding an undergraduate degree. Prospective students must apply through the Graduate School and provide transcripts according to the requirements of the Graduate School. Students may be classified as non-degree seeking students or have the certificate program incorporated into departmental degree requirements after meeting all program requirements for admission. Admission into the program will be based on the applicant's undergraduate record and statement of interest. Students who enroll in the certificate program and decide at a later date to pursue a graduate degree may apply to the appropriate graduate program and request that the units be incorporated in the degree program at admission.

Curriculum (15 Semester Hours)

- MLS 5300 Essentials of Leadership
- MLS 5320 Leadership Principles and Practices: A Management Perspective
- MLS 5320 Leadership Principles and Practices, Leading Change: A Communication Perspective
- PAD 5350 Organizational Theory & Behavior
- MLS 5350 Leadership Studio – Capstone

Leadership Studies (MLS)

5300 Essentials of Leadership (3-0)

A review of fundamental principles and concept of leadership with analysis of classic literature and applications to current issues. *Prerequisite:* Department approval.

5310 Assessing and Evaluating Leadership: Leadership Colloquium (3-0)

This course is a pro-seminar which involves attendance at lectures, seminars, and interaction with community leaders and a professional evaluation. *Prerequisite:* Department approval.

5320 Leadership Principles and Practice: A Management Perspective (3-0)

Review of best practices and applications of management within and outside of organizational institutions. *Prerequisite:* Department approval.

5330 Leadership Principles and Practice, Leading Change: A Communication Perspective (3-0)

Identification and evaluation of best practices in leadership communication during processes of organizational change. *Prerequisite:* Department approval.

5350 MLS Leadership Studio – Capstone (3-0)

Requires students to integrate and apply core knowledge and research skills to the analysis of a major leadership problem. This course is taken in the student's final semester in the program. *Prerequisite:* Department approval.

Public Administration (PAD)

5300 Research Methods (3-0)

Introduction to methods used in public management research. Five components of research design and evaluation are covered: 1) framing leadership questions and/or problems; 2) developing testable questions; 3) situating questions with regard to past research (literature reviews); 4) empirical testing and evaluation methods; 5) presenting findings. *Prerequisite:* Department approval.

5350 Organizational Theory & Behavior (3-0)

Introduction to the major theories in organizational theory and administrative behavior and their uses in diagnosing organizational problems. Addresses key organizational functions and emphasis on organization-environment relationships. *Prerequisite:* Department approval.

5351 Applied Statistics for Public Administrators (3-0)

Course covers the quantitative methods used by public managers in policy analysis and evaluation, preparing students to be intelligent users of research and evaluation studies. Students design, conduct, and report on a research question of their choosing. *Prerequisites:* PAD 5300 with a grade of "B" or better and department approval.

Master of Business Administration and Master of Public Administration: Two Degree Option (MBA/MPA)

See information regarding this two degree option under the College of Business Administration and in the Interdisciplinary Programs section under the Public Administration Program.

Master of Fine Arts in Creative Writing (MFA)

See information regarding this degree in the College of Liberal Arts section under Liberal Arts Interdisciplinary Studies.

Master of Information Technology (MIT)

234 Computer Science Building
(915) 747-5480 (ph)
(915) 747-5030 (fax)
<http://www.mit.utep.edu>

PROGRAM DIRECTORS: David Novick

CS GRADUATE FACULTY: Cheon, da Silva, Freudenthal, Fuentes, Gates, Krenovich, Longpré, Modave, Novick, Sassenfeld, Teller, Ward

IDS GRADUATE FACULTY: Bagchi, Gemoets, Hall, Joseph, Kirs, Mahmood, Udo

The Information and Decision Sciences and Computer Science departments administer the Master of Information Technology degree program. This program is designed to train graduates from any academic discipline in the application of information technology. The program provides application-level, technical knowledge in computer fundamentals and in the areas of database, data communications, networks, and the management of information technology. Upon completion of this professional degree, graduates will be able to apply information technology tools and skills in their work environments. Training in the areas of information technology impact assessment and innovation will enable graduates of this program to utilize and manage information technology with the objective of increasing organizational productivity and competitive advantage.

Requirements for Admission

Applicants must have earned a Baccalaureate Degree from an accredited university. Applications will be evaluated based upon achievement and potential as demonstrated by students' upper-level undergraduate GPA and Graduate Record Examinations (GRE) score. Students whose college education was in a language other than English need a written TOEFL score of at least 600. Applicants must also be able to demonstrate knowledge of the interaction between data structures and algorithms. This can be demonstrated by completion of a course such as CIS 3355-Business Data Structure or CS 2302-Data Structures, or by other means determined by the program committee.

Requirements for the Degree

Thesis Program - 24 semester hours of course work plus

6 semester hours of thesis (MT 5398 and MT 5399)

30 total semester hours minimum

Project Program - 24 semester hours of course work plus

6 semester hours of project work (MT 5398 and MT 5399 plus satisfactory performance in a comprehensive final examination)

30 total semester hours minimum

Coursework Option

30 semester hours of course work plus satisfactory performance in a comprehensive final examination

30 total semester hours minimum

All students must successfully complete the five following courses:

MT 5310 Fundamentals of Computers

MT 5312 Systems Analysis and Design

MT 5314 Database Applications

MT 5316 Web-based Computing

MT 5318 Evaluation of the Impact of Information Technology

Select three courses from the following menu:

- MT 5322 Hardware Software Computing Environments
- MT 5324 Object-Oriented Analysis and Design
- MT 5328 Applied Multiprocessing Computing
- MT 5330 Computer Networks and Data Communications
- MT 5332 Data System Administration
- MT 5334 Management of Information Technology
- MT 5390 Special Topics in Information Technology

Select one from the following:

COMM5362, ENGL 5311, ENGL 5314, or ENGL 5315

Coursework Option

Students who choose to complete the coursework option may take any two UTEP graduate courses related to the application of technology to that academic discipline (approval of the graduate advisor is required). Students may also use non-required MIT courses to fulfill their coursework requirement. Students who elect this option are required to complete the comprehensive final exam.

Master of Information Technology (MIT)

5310 Fundamentals of Computers (3-0)

A review of fundamental programming concepts proceeding to topics in algorithm development, data structures, and intelligent combinations of data structures and algorithms for production-quality software development. *Prerequisite:* Department approval.

5312 Systems Analysis and Design (3-0)

This course presents an overview of the systems development life cycle. It focuses on tools and techniques that the programmer or analyst can use to document information systems. Tools for describing data flow, data structure, process flow, file design, input and output design, and program specifications are applied to documenting systems. The course surveys other important skills for the systems analyst such as fact finding, communications, project management, and cost-benefit analysis. *Prerequisite:* Department approval.

5314 Database Applications (3-0)

A programmer-level class in developing database application software, focusing on schema, query, and host language interfaces, culminating in 4GL software development. *Prerequisite:* Department approval.

5316 Web-based Computing (3-0)

A user-level data communications class for developing multimedia web-based systems in modern development environments. Topics include applied telecommunications and computer networks. *Prerequisite:* Department approval.

5318 Evaluation of the Impact of Info Technology (3-0)

A study of the impact of information technology on industrial management, productivity, personnel, privacy, competitive advantage, innovation, organizational design, organizational intelligence, individual learning, and communication. This course will include a term project where each student will study the impact of information technology on an industry (e.g., health care, manufacturing, banking) depending on her/his background/interest and prepare a term paper. *Prerequisite:* Department approval.

5322 Hardware Software Computing Environments (3-0)

A programmer-level course in the basic functions of an OS including memory, CPU device, and file management; concurrency issues; command and window-based interfaces; and distributed operating systems. *Prerequisite:* Department approval.

5324 Object-Oriented Analysis and Design (3-0)

Object-oriented techniques as they apply to software engineering and software architecture design and implementation. Instruction focuses on a formal specification and design language. *Prerequisite:* Department approval.

5328 Applied Multiprocessing Computing (3-0)

This course will provide students with a general understanding of parallel and distributed computer systems and the ability to design and implement programs for such systems. The course focuses on the motivation for the use of parallel and distributed systems, the high-level architecture of these systems, key parallel and distributed programming concepts, and the implementation of these concepts in a distributed programming language. *Prerequisite:* Department approval.

5330 Computer Networks and Data Communication (3-0)

This course will provide students with a general introduction to data communications theory and technology. Covered topics include: networking media and hardware, multiplexing, switching, network topologies, internetworking, address resolution, protocol layering, routing methods, and network security. *Prerequisite:* Department approval.

5332 Data System Administration (3-0)

This course will provide students with a general understanding of fundamental system administration tasks such as systems planning, maintenance, data recovery strategies, user group design and administrator tools. Includes a study of policy and procedure development and system documentation.

Prerequisite: Department approval.

5334 Management of Information Technology (3-0)

This course entails the management of the development, planning, and utilization of information systems within organizations. Among the topics discussed are the approval and decision process for the development of systems, information technology (IT) strategic planning, and IT outsourcing, IT project management, evaluation of strategic investments in IT. The course utilizes case studies and the student is expected to do a project utilizing the professional literature. *Prerequisite:* Department approval.

5390 Special Topics in Information Technology (3-0)

Advanced topics of contemporary interest in Information Technology. May be repeated once if topic is varied. *Prerequisite:* Department approval.

5398 Thesis/Project (3-0)

Students will apply knowledge developed in the MT program courses to a project relevant to their areas of interest/expertise.

5399 Thesis/Project (3-0)

Students will apply knowledge developed in the MT program courses to a project relevant to their areas of interest/expertise. *Prerequisite:* Department approval.





Public Administration Program

Institute for Policy and Economic Development
414 Kelly Hall
(915) 747-7974

DIRECTOR: Dennis Soden
COORDINATOR: Elizabeth Dalton, J. Scott McDonald
GRADUATE FACULTY: Bretting, Cuadrado, Dalton, McDonald, Peña, Soden
CONTRIBUTING FACULTY: ADouri, Fuentes, Lieberman, Posthuma, Schauer, Weaver, Witherspoon
ADJUNCT FACULTY: Almanzan, Calderon, Little, McElroy, Ormedo

The Master of Public Administration (MPA) degree provides professional education for students interested in public service careers. The interdisciplinary program is designed to stress the knowledge, skills, values, and behaviors essential to the successful public servant. Some flexibility in curriculum is permitted to meet the diverse educational needs of pre-entry and in-career students, changing-career students, and students in different career specialties in public administration. The curriculum components are designed to produce professionals capable of intelligent and creative analysis, communication, and action in the public sector context.

Basic Requirements for Admission to the MPA Program

1. Bachelor's degree from an accredited college or university
2. Demonstration of academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE) and upper level undergraduate and graduate coursework.
3. A one- to two-page statement of purpose that addresses educational and career goals and reasons for pursuing a MPA degree.
4. Three letters of recommendation from instructors, job supervisors or others in a position to evaluate your ability to succeed in a MPA program.
5. For international students, a score of 600 on the TOEFL and an in-person or telephone interview.

Specific Requirements for the MPA Degree

Completion of at least 43 semester hours of course work consisting of the following:

1. At least 28 hours of courses in the theoretical, methodological, and technical aspects of public management
 - PAD 5100 Introduction to Public Administration (one semester hour)
 - PAD 5300 Introduction to Research Methods
 - PAD 5310 Public Policy Process and Institutions
 - PAD 5311 Economic Analysis for Public Administrators
 - PAD 5350 Organizational Theory and Behavior
 - PAD 5351 Applied Statistics for Public Administrators
 - PAD 5352 Public Budgeting and Financial Management
 - PAD 5353 Human Resources Management
 - PAD 5364 Public Participation and Democratic Process
 - PAD 5365 Policy Analysis and Decision Making

Selected MBA core courses may be substituted for some of these courses, depending on course offerings by each program. Advance approval of MPA director is required for substitution.

2. Completion of an additional 12 hours of approved courses in an area of concentration. Areas of concentration are offered in: Border and International Administration, Communications, Economic Development, Financial Management, Health Administration, Human Resources Management, Leadership, and Urban and Regional Planning. No more than 6 hours of electives can be at the undergraduate level in courses approved for graduate-level credit.
3. The final program requirement is completion of the capstone course, PAD 5367 Comprehensive Integration of Public Administration (3 semester hours) or a thesis (six semester hours). (PAD 5367 is not included in either the 28 hours of requirements or the 12 hours of courses in an area of concentration.)
4. Three semester hours of PAD 5366 Internship in Public Administration are required for students who do not possess significant administrative experience as part of the 12 hours of courses in the area of concentration.

Two Degree Option – MPA/MBA

Students may also enroll in a two-degree option: MPA-MBA program. The objective of this program is to permit students with broad interest in both the public and private sectors to double register in both the MPA and MBA programs. With the increasing interdependence of the public and private sectors, this option is attractive to those students wishing to pursue careers in positions responsible for working with their counterparts in private or public organizations. In order to be admitted into the two-degree option, the applicant must specify the option *at the time of application to the Graduate School*. Students who wish to enter either the MPA or MPA-MBA programs should consult with the Director of the MPA program with regard to admission, required courses, approved electives, and petition for candidacy.

The program consists of 61 semester hours of graduate study, of which 31 hours are in areas of Public Administration and 30 hours in Business Administration.

Specific Requirements for the MPA/MBA Two-Degree Option

1. Students must meet all requirements for admission to both programs.
2. The program consists of 28 semester hours of core MPA courses, 30 semester hours of core MBA courses, and PAD 5367, plus any additional required courses. The

number of hours necessary to complete the two-degree option will vary depending upon each student's background and previous academic work.

3. The core curriculum in each of the separate degree programs must be satisfactorily completed.
4. Electives must be approved by the academic advisor of both programs; upon such approval, the core courses of one program may be used to meet the elective requirements of the other.
5. Admission and continuance decisions are handled separately by the MPA and MBA graduate committees and by the Graduate School.

Graduate Certificate Programs

Certificate in Border Administration

The Certificate in Border Administration is a 15 semester hour interdisciplinary program in border administration at the graduate level. The program is designed for persons employed in regional governments and non-profits and students interested in careers in border administration. The certificate program provides core knowledge in border theory and border issues: the geography, globalization, economics, security, foreign policy, regional planning, and social, political and multi-cultural dynamics of borders.

The Certificate in Border Administration is available to students in the Master of Public Administration and the Master of Arts or Science in Economics, Political Science, Environmental Science and Sociology. It is also designed for government employees and professionals in military, private and non-profit organizations, especially those working for agencies that are charged with the administration of border-related and bi-national programs.

Certificate Requirements

Five courses (15 semester hours) are required of all students. Non-degree seeking students will take a capstone course (PAD 5367, Comprehensive Integration of Public Administration) that calls for demonstration of competency on border issues in a professional format. Each student will design and complete a research project that demonstrates the ability to synthesize and apply border administration knowledge and skills to a public service problem. For degree seeking students, the capstone course may be aligned to degree requirements.

Certificate Admission Requirements

Prospective students must apply through the Graduate School. Students may be classified as non-degree seeking students or have the certificate program incorporated into departmental degree requirements after meeting all program requirements for admission. Admission into the program will be based on the applicant's undergraduate record and statement of interest. Students who enroll in the certificate program and decide at a later date to pursue a graduate degree may apply to the appropriate graduate program and request that the units be incorporated in the degree program at admission.

Curriculum (15 semester hours)

- PAD 5355 Comparative Public Administration
- POLS 5331 Seminar in International Organizations and Law
- PAD 5361 Political Economy of Borders
- POLS 5344 Seminar in Border Theory
- PAD 5367 Comprehensive Integration of Public Administration

Certificate in Economic Development

The Graduate Certificate Program in Economic Development is a 15 semester hour interdisciplinary program designed for persons either employed or interested in careers with economic development agencies and seeking core knowledge in economic development theory and practice. The Certificate in Economic Development is available to students in the Master of Public Administration and the Master of Arts or Science in Economics, Political Science, Environmental Science and Sociology. It is also designed for government employees and professionals in military, private and non-profit organizations, especially those working for community service and economic development agencies.

Certificate Requirements

Five courses (15 semester hours) are required of all students. Non-degree seeking students will take a capstone course (PAD 5367 Comprehensive Integration of Public Administration) that calls for the demonstration of competency on economic development issues in a professional format. Each student will design and complete a research project that demonstrates the ability to synthesize and apply economic development knowledge and skills to a current problem in the field. For degree seeking students, the capstone course may be aligned to degree requirements. Students enrolled in the Certificate in Economic Development program must also complete any prerequisite coursework in micro/macroeconomics and undergraduate statistics.

Certificate Admission Requirements

The certificate program is designed for students holding an undergraduate degree. Prospective students must apply through the Graduate School and provide transcripts according to the requirements of the Graduate School. Students may be classified as non-degree seeking students or have the certificate program incorporated into departmental degree requirements after meeting all program requirements for admission. Admission into the program will be based on the applicant's undergraduate record and statement of interest. Students who enroll in the certificate program and decide at a later date to pursue a graduate degree may apply to the appropriate graduate program and request that the units be incorporated in the degree program at admission.

Curriculum (15 semester hours)

- Three required courses (nine semester hours):
- PAD 5368 Regional Economic Development: Research Methods
 - PAD 5369 Economic Impact Models **or**
 - FIN 5394 Current Issues in Finance
 - PAD 5367 Comprehensive Integration of Public Administration
- Two courses (six semester hours) selected from the following courses:
- ECON 3334 Regional Economics
 - ECON 3335 Urban Economics
 - MKT 4308 Real Estate Principles

Certificate in Homeland Security

The Graduate Certificate in Homeland Security is designed for working and mid-career professionals who already hold a baccalaureate or graduate degree and are interested in further professional education in this field. It will consist of 15 semester hours of study and includes two existing courses in the MPA curriculum and three new ones.

Certificate Admission Requirements

The Graduate Certificate in Homeland Security is designed for working and mid-career professionals who already hold a baccalaureate or graduate degree and are interested in further professional education. Applicants must complete the graduate school application and provide an official transcript. A one-to two-page statement of purpose is also required. Students may be classified as non-degree seeking students or have the certificate program incorporated into the degree requirements appropriate to their department and after meeting all program requirements for admission. Students who complete the Graduate Certificate in Homeland Security and decide to pursue a graduate degree at a later date may apply to the appropriate graduate program and request that the units become part of their program at admission.

Curriculum (15 semester hours)

- PAD 5340 Pro-Seminar in Homeland Security
- PAD 5341 Legal Issues in Homeland Security
- PAD 5342 Risk Analysis
- PAD 5363 Intergovernmental Relations
- PAD 5367 Comprehensive Integration of Public Administration

Each course in the certificate program will also include four components: 1) *Writing* in a variety of genres; 2) development of audience-specific *oral communication skills* through individual and group presentations; 3) *team building skills* via group project assignments; and 4) an *ethics component* that will draw on case studies to develop skills in critical assessment of ethical dilemmas.

Certificate in Urban and Regional Planning

The UTEP Graduate School offers a Graduate Certificate Program in Planning which is a 15 semester hour interdisciplinary program based in the Institute for Policy and Economic Development and associated with the Master of Public Administration Program. The certificate program is aimed at professionals with bachelor's or master's degrees who wish to enhance their knowledge and skills in the area of planning and at students in the MPA or other master's or doctoral programs (in fields such as economics, political science, environmental science, and engineering) who wish to incorporate a certificate in planning in their graduate degree program. The certificate is designed for those employed as planners and students interested in a career in planning to provide them with core knowledge in economics, demography, law and administration and the technology (such as GIS) necessary for planning activities.

Certificate Requirements

The certificate program is a 15 semester hour program, including a required seminar (PAD 5359) and a required capstone course (PAD 5367). Where appropriate, courses that meet the requirements for the Certificate may also be applied to degree programs. Students who are not enrolled in degree programs who later decide to pursue a degree program may request that these courses be applied to their degree upon admission.

Certificate Admission Requirements

Prospective students must apply through the Graduate School. Applicants should complete the Graduate School application and indicate the certificate area. The application fee will be waived for students already enrolled in a degree program. Applicants must provide transcripts according to the requirements of the Graduate School if these are not already on file in the Graduate School.

Students enrolled in the MPA program may select Urban and Regional Planning as an area of concentration. Courses taken to meet core curriculum requirements in the MPA program (PAD 5310 Public Policy Process and Institutions, PAD 5367 Comprehensive Integration of Public Administration) may not be included in the 12 semester hours of area concentration even though they are included in the Graduate Certificate Program in Planning

Curriculum (15 semester hours)

Two required courses (6 semester hours)

- PAD 5359 Regional and Urban Planning
- PAD 5367 Comprehensive Integration of Public Administration

One course in Policy and Administration (3 semester hours)

- PAD 5310 Public Policy Process and Institutions
- PAD 5360 Urban Administration
- PAD 5363 Intergovernmental Relations

One course in Economics and Demography (3 semester hours)

- SOCI 5340 Seminar in Demography
- ECON 3334 Regional Economics
- ECON 3335 Urban Economics

One tool course from the following (3 semester hours)

- MKT 4308 Real Estate Principles
- PAD 5368 Regional Economic Development Research Methods
- PAD 5369 Economic Impact Models
- PAD 5390 Selected Problems in Public Administration (topics to include Geographic Information Systems)

Only one undergraduate course (below a 5000 listing) is allowable for the certificate.

Master in Public Administration Program Concentrations

Each concentration consists of four courses (12 credit hours) in the area of study. Three semester hours of PAD 5366 Internship in Public Administration is substituted for one of the elective courses in the concentration for students without appropriate professional experience.

A. Border and International Administration

The Border and International Administration concentration consists of two required courses and two electives. The two required courses are:

PAD 5355 Comparative Public Administration

POLS 5344 Seminar in Border Theory

The two electives may be selected from the following course options.

PAD 5354 Administrative Law and Regulation

PAD 5359 Regional and Urban Planning

PAD 5360 Urban Administration

PAD 5361 Political Economy of Borders

PAD 5380 Selected Problems in Public Administration

LABS 5301 Issues in Border Studies

PAD 5363 Intergovernmental Relations

POLS 5331 Seminar in International Organizations and Law

POLS 5336 Seminar in Southwestern Border Politics

POLS 5338 Seminar in International Political Economy

SOCI 5355 U.S.-Mexico Borderlands in Change

SOCI 5341 Special Topics Criminal Justice on the U.S.-Mexico Border

B. Communications

Students selecting the Communications concentration must elect four of the following courses:

COMM 5337 Seminar in Organizational Communication (Any topic)

COMM 5337 Seminar in Organizational Communication (New topic: Administrative Communication)

COMM 5335 Seminar in Intercultural/International Communication

COMM 5332 Seminar in Contemporary Rhetoric **or**

COMM 5362 Organizational Communication

C. Health Administration

Students selecting the Health Administration concentration must:

Take at least one course from the following context courses:

SOCI/

ANTH 4346 Health and Illness in Cross-Cultural Perspective

SOCI 5340 Seminar in Demography

SOCI 5341 Special Graduate Topics: Medical Sociology

SOCI 5362 Seminar in Health Services Delivery

Take at least two courses from these planning and administration courses:

HSCI 5356 Planning and Administering Health Promotion Programs

HSCI 5359 Grant Writing in Health Professions

PSCI 5340 Management and Health Systems in Physical Therapy

NURS 5335 Management Roles and Operations

NURS 5337 Health Care Financial Management

NURS 5338 Health Law, Policy and Ethics

NURS 5365 Managing Health Care Outcomes

The following courses are Public Health (PH) University of Texas-Houston School of Public Health courses.

PH 3615 Introduction to Management and Policy Sciences

PH 3616 Health and Safety Program Management

PH 3617 Health Care Finance

PH 3618 Social and Economic Determinants of Health

PH 5110 Health Service Delivery and Performance

Take at least one course from the following list without restrictions, but no double counting.

SOCI/

- ANTH 4346 Health and Illness in Cross-Cultural Perspective
- SOCI 5340 Seminar in Demography
- SOCI 5341 Special Graduate Topics
- SOCI 5362 Seminar in Health Services Delivery
- HSCI 5356 Planning and Administering Health Promotion Programs
- HSCI 5359 Grant Writing in Health Professions
- PT 5340 Management and Health Systems in Physical Therapy
- NURS 5335 Management Roles and Operations
- NURS 5337 Health Care Financial Management
- NURS 5338 Health Law, Policy and Ethics
- NURS 5365 Managing Health Care Outcomes

D. Public Policy and Management

Students choosing the Public Policy and Management concentration must take four of the following courses.

- MGMT 5336 Effective Management of Human Resources
- PAD 5354 Administrative Law and Regulation
- PAD 5358 Administrative Ethics and Responsibility
- PAD 5356 Social Entrepreneurship and Not-For-Profit Management
- PAD 5357 Women and Men in Management
- POLS 5312 Seminar in Political Leadership
- PAD 5360 Urban Administration
- PAD 5362 Public Sector Accounting
- PAD 5363 Intergovernmental Relations
- PAD 5380 Selected Problems in Public Administration
- SOCI 5330 Social Inequality

E. Leadership

Students selecting the Leadership concentration must elect four of the following courses:

- PAD 5358 Administrative Ethics and Responsibility
- POLS 5312 Seminar in Political Leadership
- POLS 5313 Seminar in Political Communication
- COMM 5362 Organizational Communication
- MLS 5300 Essentials of Leadership
- MLS 5320 Leadership Principles and Practices: A Management Perspective
- MLS 5330 Leadership Principles and Practices, Leading Change: A Communications Perspective

F. Urban and Regional Planning

The Urban and Regional Planning concentration consists of one required course, one course in *Policy and Administration*, one course in *Economics and Demography* and one *tool* course.

- PAD 5359 Regional and Urban Planning (required)
- One course in *Policy and Administration*:
- PAD 5360 Urban Administration
- PAD 5363 Intergovernmental Relations
- One course in *Economics and Demography*:
- SOCI 5340 Seminar in Demography
- ECON 3334 Regional Economics
- ECON 3335 Urban Economics
- One *tool* course:
- MKT 4308 Real Estate Principles
- PAD 5368 Regional Economic Development: Research Methods
- PAD 5369 Economic Impact Models
- PAD 5380 Selected Problems in Public Administration (topics to include Geographic Information Systems)

Public Administration (PAD)

5100 Introduction to Public Administration (1-0)

Introduction for MPA students to: a) the scope and nature of the field and the skills and competencies required of public administrators; b) UTEP, university resources, the MPA program, and graduate school standards and expectations; and c) public policy issues-the art and practice of policy analysis. *Prerequisite:* Department approval.

5190 Selected Topics in Public Administration (1-0)

The study of selected problems and/or current issues in public management. Course provides professional training opportunities, including the hands-on development of specialized skill sets and techniques for non-profits and public organizations. Examples of topics are: information technology and government, survey design, public marketing, strategic planning, and performance budgeting. *Prerequisite:* Department approval.

5300 Introduction to Research Methods (3-0)

Introduction to methods used in public management research. Five components of research design and evaluation are covered: 1) framing public policy problems; 2) developing testable questions; 3) situating questions with regard to past research (literature reviews); 4) empirical testing and evaluation methods; 5) presenting findings. *Prerequisite:* Department approval. (PAD 5300 is the same course as POLS 5300).

5310 Public Policy Process and Institutions (3-0)

This course covers the history of public administration and the basic issues confronted, both legal and political, the role of bureaucratic expertise in contemporary government and in solving public problems, and public participation in administration. *Prerequisite:* Department approval. (PAD 5310 is the same course as POLS 5364).

5311 Economic Analysis for Public Administrators (3-0)

Introduction to microeconomic concepts and analysis and their application to the public sector. Topics to be covered include: supply and demand theory, firms and markets, consumer theory, market equilibrium, welfare economics, public choice theory and the economics of planning. *Prerequisite:* Department approval.

5340 Pro-Seminar in Homeland Security (3-0)

This course examines the scope and breadth of homeland and national security issues. It serves as a professional overview of the field and its intelligence sub-fields and includes the emergency management/natural disaster response aspects of the field. *Prerequisite:* Department approval.

5341 Legal issues in Homeland Security (3-0)

This is a foundation course in the legal aspects, civil and criminal, of homeland security. *Prerequisite:* Department approval.

5342 Risk Analysis (3-0)

This course is designed to introduce students to the concepts and skills of risk perception, assessment, and aversion, risk management and communication, and their roles in homeland security. *Prerequisite:* Department approval.

5350 Organizational Theory and Behavior (3-0)

Introduction to: the major theories in organizational theory and administrative behavior and their uses in diagnosing organizational problems; key organizational functions; emphasis on organization-environment relationships. *Prerequisite:* Department approval.

5351 Applied Statistics for Public Administrators (3-0)

Course covers the quantitative methods used by public managers in policy analysis (ANOVA; Ordinary Least Squares and variants) and prepares students to be intelligent evaluators of public sector research and evaluation studies. Students design, conduct and report on a research question of their choosing; use of SPSS required. *Prerequisites:* PAD 5300 with a grade of "B" or better and department approval.

5352 Public Budgeting and Financial Management (3-0)

Introduction to the theories and practice of budgeting, financial management, tax analysis, and the role budgets play in public policy making and implementation. Course covers approaches and techniques of budget analysis. *Prerequisites:* PAD 5311 with a grade of "B" or better and department approval.

5353 Human Resources Management (3-0)

Introduction to the social, political and legal dimensions of public personnel management (history, values in the American political system, employee selection, compensation, job design, evaluation, labor relations, staff development and training, administrative ethics, affirmative action, comparable worth, sexual harassment). *Prerequisite:* Department approval.

5354 Administrative Law and Regulation (3-0)

The legal problems of the administrative process, including the uses of administrative discretion, fact-finding, and hearing procedures, and the methods and scope of judicial review of administrative decisions. *Prerequisite:* Department approval.

5355 Comparative Public Administration (3-0)

A comparative view of government administration in developed and developing countries. Examines both the effects of culture on government bureaucracy and the efforts of governments to promote socioeconomic development. May include emphasis on U.S.-Mexico border administration. *Prerequisite:* Department approval.

5356 Social Entrepreneurship and Not-For-Profit Management (3-0)

Course examines the administrative challenges in the nonprofit sector, with special attention to social entrepreneurship, practical management and problem-solving. Includes topics such as the nature and scope of the nonprofit sector, fund-raising, volunteer management, government and public relations, and the organization of nonprofit institutions. *Prerequisite:* Department approval.

5357 Women and Men in Management (3-0)

Analyzes gender diversity in public and private institutions. *Prerequisite:* Department approval.

5358 Administrative Ethics and Responsibility (3-0)

Course deals with ethical issues that face public administrators: responsibilities, accountability, discretion, the public interest, professionalism, codes of ethics, and corruption. It focuses on applied ethics and the reasoning process administrators can use to analyze and evaluate ethical dilemmas. *Prerequisite:* Department approval.

5359 Regional and Urban Planning (3-0)

Covers planning topics associated with satisfying area-wide service needs in urban and regional environments. Topics may include land-use regulations, capital facilities siting, and transportation planning. *Prerequisite:* Department approval.

5360 Urban Administration (3-0)

Public administration at the level of service delivery with emphasis upon the management of and policy problems facing local agencies. *Prerequisite:* Department approval.

5361 Political Economy of Borders (3-0)

This course provides an introduction to the field of international border economics with special emphasis on topics dealing with the border zone between Mexico and the United States. We will intensely examine the role of public policy on economic issues of the border. This includes, but is not limited to the following topics: international trade agreements, monetary policy, environmental and natural resource policy, immigration (legal and illegal), the underground economy, and economic development. *Prerequisite:* Department approval.

5362 Public Sector Accounting (3-0)

Examination of the public sector and non-profit accounting process including the preparation of annual financial reports, transaction analysis, auditing, and cost analysis for grants and service efforts. *Prerequisite:* Department approval.

5363 Intergovernmental Relations (3-0)

Covers the interrelationships among international, national, state, and/or local governmental institutions in the policy making, executive, and/or administrative processes. The special issue of states and communities situated on international borders is also discussed. *Prerequisite:* Department approval.

5364 Public Participation and Democratic Process (3-0)

This course addresses public policy formation, implementation, and evaluation as a democratic process. Surveys issues and best practices for public participation: roles of experts and publics, opening the full policy cycle to public participation, involving stakeholders, communicating effectively, working with complex and conflictive communities, and the ethics of democratic participation. *Prerequisite:* Department approval.

5365 Policy Analysis and Decision Making (3-0)

Course covers the use of quantitative decision tools and formal modeling in the evaluation of policy outcomes: cost-benefit analysis, decision-tree analysis, logistic modeling of categorical choice decisions, etc., with examples from legislative, executive and judicial decision-making environments. Use of SPSS required. *Prerequisites:* PAD 5300 and PAD 5351 each with a grade of "B" or better and department approval.

5366 Internship in Public Administration (3-0)

Practical internship experience with a public or non-profit sector agency, selected in consultation with the MPA program advisor. The experience consists of at least twenty hours of work per week with the selected agency. The internship will be under close supervision by the agency and the MPA program advisor. *Prerequisite:* Department approval.

5367 Comprehensive Integration of Public Administration (3-0)

MPA Studio course and capstone experience in the MPA program. Requires students to integrate and apply core knowledge and research skills to the analysis of a major administrative or policy problem. Students must complete 33 semester hours in the program before enrolling in this course. *Prerequisite:* Department approval.

5368 Regional Economic Development: Research Methods (3-0)

Covers the key research, analytical tools, and data sources employed in the work of economic development professionals: cluster analysis, use of public consumption data, e.g., market and demand data for industrial space, collecting primary economic development information, benchmarking community economic progress, managing and presenting data, and identifying target industries. *Prerequisite:* Department approval.

5369 Economic Impact Models (3-0)

Examines the basic principles and variables employed in economic impact modeling; includes training in the types of models currently used in the economic development field. *Prerequisite:* Department approval.

5380 Selected Problems in Public Administration (3-0)

Independent study, research, and writing on a topic agreed upon by the student and professor. *Prerequisite:* Department approval.

5398 Thesis (0-0-3)

As part of this course, the student will successfully prepare and defend a proposal for the MPA thesis. The proposal must be approved by the student's thesis committee, and failure to meet this requirement within two long semesters will preclude continuation of the student in the MPA program. *Prerequisite:* Department approval.

5399 Thesis (0-0-3)

Continuous enrollment required while work on the thesis continues. *Prerequisites:* PAD 5398 with a grade of "B" or better and department approval.

Master of Science in Environmental Science

See information regarding this degree in the College of Science section of this catalog.

Master of Science in Interdisciplinary Studies (M.S.I.S.)

See information regarding this degree in the College of Science section of this catalog.





Graduate Certificate in Intelligence and National Security

This certificate program is designed to familiarize students with issues in national security law, intelligence and security needs, problems of security risk confronted by private and governmental organizations, and how governments and other organization communicate with each other and work jointly on security matters. Inter-jurisdictional and inter-governmental aspects of security issues concerning infrastructure, travel and transport, immigration and other similar matters will be emphasized. The program is valuable for students interested in understanding the complex world of security bureaucracy, intelligence, and organizational cooperation in security matters, and for those students seeking careers in governmental and private agencies employing security technology, methodology, and services. Students are required to complete fifteen hours of required courses. Any UTEP graduate student in good academic standing is eligible for enrollment in the Graduate Certificate in Intelligence and National Security Studies.

Certificate Admission Requirements

The Graduate Certificate in Intelligence and National Security is designed for working and mid-career professionals who already hold a baccalaureate or graduate degree and are interested in further professional education. Applicants must complete the graduate school application and provide an official transcript. A one- to two -page statement of purpose is also required. Students may be classified as non-degree seeking students or have the certificate program incorporated into the degree requirements appropriate to their department and after meeting all program requirements for admission. Students who complete the Graduate Certificate in Intelligence and National Security and decide to pursue a graduate degree at a later date may apply to the appropriate graduate program and request that the units become part of their program at admission.

Required Courses (15 semester hours)

- INSS 5302 Pro-Seminar in Intelligence and National Security
- INSS 5303 Legal Issues in Intelligence and National Security
- PAD 5342 Risk Analysis
- PAD 5363 Intergovernmental Relations
- PAD 5367 Comprehensive Integration of Public Administration

Intelligence National Security Studies (INSS)

5302 Pro-Seminar in Intelligence and National Security (3-0)

This course examines the scope and breadth of contemporary intelligence and national security issues. It serves as a professional overview of the field, detailing the structure and interrelationships of both private sector and government security bureaucracy. Emphasis will also be placed on understanding the role of science in security matters.

5303 Legal Issues in Intelligence and National Security (3-0)

This is a foundation course in the legal aspects, civil and criminal, of intelligence and national security.







Graduate School Courses

Graduate School (GRAD)

5194 Graduate Research (0-0-1)

5294 Graduate Research (0-0-2)

5394 Graduate Research (0-0-3)

Individual variable-credit research. Cannot be used to satisfy minimum degree requirements. Grade of S or U. *Prerequisite:* Graduate standing.

6000 Issues in Higher Education (0-0)

6100 Issues in Higher Education (1-0)

6300 Issues in Higher Education (3-0)

Multidisciplinary seminar on current issues in higher education. Professor approval.

6194 Doctoral Research (0-0-1)

6294 Doctoral Research (0-0-2)

6394 Doctoral Research (0-0-3)

Individual variable-credit research. Cannot be used to satisfy minimum degree requirements. Grade of S or U. *Prerequisite:* Doctoral standing.



